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by Commander RAVI KAUL

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Chanakya Publishing House, 3, Thornhill Road, Allahabad, India.

The
Journal
of the
United Service Institution
of
India

Published by Authority of the Council



Established : 1870

Postal Address :
'KASHMIR HOUSE', KING GEORGE'S AVENUE, NEW DELHI-110011
Telephone No : 375828

Vol. CIV

OCTOBER - DECEMBER 1974

No. 437

USI Journal is published quarterly in April, July, October and January
Subscription : Rs. 20 per annum. Single Copy : Rs 5, Foreign (Sea
Mail) \$ 2.00 or Sh 12.50 Subscription should be sent to the Secretary. It is
supplied free to members of the Institution. Articles, Correspondence
and Books for Review should be sent to the Editor. Advertisement
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THE FOURTH MIDDLE EAST WAR, THE ENERGY CRISIS AND U.S. POLICY*

WILLIAM E. GRIFFITH

THE October 1973 Fourth War was the greatest watershed in the politics of the Middle East since the establishment of the state of Israel in 1948. For the first time in four wars, Israel did not win an overwhelming military victory over the Arabs and thereby suffered a political defeat, while the Arabs won a political victory. Moreover, during it the Arabs began to use oil as a political weapon against the United States for its support of Israel. This and the spiraling price of oil, which the war also furthered, greatly intensified the energy crisis. Finally, all these developments moved U.S. Middle East policy away from near total support of Israel.¹

PRELUDE TO WAR : THE ARAB REALIGNMENT*

In the frustrated, ex-Imperial Islamic Arab political culture, with its historic claim to predominance over the infidels, courage—physical or rhetorical—has long been the main political virtue. Independence from Western colonialism made the Arab world neither modern nor strong. It became thwarted and radicalized, instead, because of its slow modernization and Israel's much higher level of political, economic and technological development and resultant military superiority. Until the 1973 war

* "Copyright 1974 by the Foreign Policy Research Institute". The author Dr. William E. Griffith delivered a lecture on this subject under the auspices of United Service Institution of India on Wednesday, 7th August 1974.

¹ This article is based in large part on travel in India, Iran, Kuwait, Bahrien, Saudi Arabia, Egypt, Lebanon and Israel in August and September 1973. I am grateful to Hobart Lewis, Harry Harper and Edward Thompson of *The Reader's Digest* which sponsored my trip. I am also grateful to my M.I.T. colleagues, Professors M.A. Adelman, Sidney Alexander, Nazli Choueri and Charles P. Kindleberger ; Professors A.J. Meyer and Nadav Safran of Harvard ; Professors J.C. Hurewitz and Charles Issawi of Columbia, and Geoffrey Godsall of *The Christian Science Monitor* for discussions and comments, as well as to all those with whom I talked in the Middle East and elsewhere, whose number and often whose positions oblige me not to list them by name.

*For Middle East developments in general, see Arnold Hottinger, "The Depth of Arab Radicalism," *Foreign Affairs*, April 1973, pp. 491-504, and his regular coverage in *Neue Zürcher Zeitung*. On Soviet and Chinese policy in the Middle East, see the Analyses by John C. Campbell and W.A.C. Adie in *Problems of Communism*, September-October 1973, pp. 210-217. See also J. Bowyer Bell, "Babel Mandeb, Strategic Trouble-spot," *ORBIS*, Winter 1973, pp. 975-989. On the 1973 war, see Nadav Safran, "The War and the Future of the Arab-Israeli Conflict," *Foreign Affairs*, January 1974, pp. 215-236.

its repeated defeats by Israel, peopled by Jews whom Arabs consider inferior and supported by the United States, which the Arabs see as the successor to their British and French colonizers, aggravated this condition even further.

Many Arabs, therefore, became pro-Soviet and some radically leftist. Then their 1967 total defeat, Nasser's subsequent death, Moscow's unwillingness to fight Israel with them lest this hazard its growing détente with Washington, and its psychological mishandling of the Arabs turned the Arab world toward the right—and, until the 1973 war, against Moscow—and effected an exchange of Nasser's hostility toward Saudi Arabia for an Egyptian-Saudi alliance.

Before the 1973 war, few Arabs believed that they could soon defeat Israel, for they thought the human and technological modernization gap between Arabs and Israelis continued to widen, to Israel's advantage. (As the war turned out, they had underestimated themselves.) Most of them still unrealistically wanted the Israeli state to disappear. But Sadat and the majority of the Egyptian political elite realized that this was an impractical goal, at least in the near future. Their objective, therefore, was Israel's withdrawal from the occupied territories, if possible by military victory or if not by U.S. pressure on Israel in return for continuing supplies of Arab oil.

Whether or not Egypt still wants to destroy Israel is less important than whether it thinks it can. Nor should one assume, as most Israelis seem to, that the Arabs' constant demand for "the national rights of the Palestinian people" means that they expect to be able to destroy Israel.³ The Palestinian *fedayeen* wanted Israel's destruction, but they were nearly crushed by Hussein in Jordan in 1970. Even so, their hijackings and assassinations and Israeli retaliations fueled the fire of Arab bitterness and passion.

The 1971 Middle East truce, the intensified Soviet-American détente and the 1972 Soviet expulsion from Egypt defused the superpower aspects of the Middle East crisis. Until 1973, Moscow preferred neither peace

³True, the secret November 28, 1973 Algiers resolution of the Arab summit conference spoke of "the commitment to the restoration of the national rights of the Palestinian people in the manner decided by the PLO in the capacity as the sole representative of Palestinian people", but the resolution added, "The Hashemite Kingdom of Jordan expressed reservations on this clause," and the PLO is in any case hardly independent of Egypt and Saudi Arabia. Text: *an-Nahar* (Beirut), December 4, 1973; translated in *Foreign Broadcast Information Service/Middle East* (hereafter cited as *FBIS/IE*) December 7, 1973, p. A 1.

nor war in the Middle East, for war endangered détente and peace would greatly devalue the Middle East trump card, the Arabs' need for massive arms aid. Washington wanted a settlement but proved unwilling to force the Israelis toward it because of pro-Israel political pressures in the United States.

Before the 1973 war, a major Arab political realignment was under way, caused by the 1967 Israeli defeat of Egypt, Nasser's death and the end of the Yemen war, the swing to the right in the Arab world, Soviet-American détente, and rising Saudi oil wealth and power. Sadat, who is much more of an Egyptian traditionalist than the radical pan-Arab Nasser, purged the pro-Soviet Ali Sabry group, expelled the Soviet military from Egypt, allied with and was financed by the conservative King Faisal, moved internally toward the right, and unsuccessfully tried to re-engage the United States against indefinite Israeli occupation of Sinai. He also used Saudi money and support to counter Qadhafi's radical rightist pressure for a Libyan-Egyptian merger and to enable Egypt to become less dependent on Soviet arms aid, and he hoped to benefit from the application of future Saudi oil sanction to weaken U.S. support of Israel. King Faisal for the first time had enough oil revenues so that he could easily afford to use the oil weapon. He no longer had to fear Egyptian hostility and therefore needed the United States less; and his use of the oil weapon would help to check Qadhafi, make Saudi Arabia the leader of the Arab world and expel the Israelis from the Islamic holy places in Jerusalem, for him a matter of Islamic and family as well as political duty.⁴

PRELUDE TO WAR : ISRAELI ADJUSTMENT TO EMPIRE

Before the Fourth War, most of the Israeli ruling elite believed that there was no other way (in Hebrew, *ein brera*) except superior force to preserve Israeli security. Israel never trusted the United Nations, and since 1967, when Washington did not swiftly react militarily to Nasser's verbal closing of the Straits of Tiran, had no longer trusted the United States. It was determined to be the master of its own fate and increasingly convinced that it could be. Immediately after the 1967 war, Israel would probably have given up most of the occupied territories in return for a peace treaty. But the Arabs, weak and intransigent, refused.

Thereafter, Israel easily "pacified" and dominated the West Bank and Gaza by minimal but ruthless force plus rapid economic development. Sadat had thrown the Soviets out of Egypt. U.S. support of Israel was

⁴Refer to King Faisal's remarks on Jerusalem, Radio Riyadh, December 30, 1973, 1800 GMT (FBIS/ME, January 3, 1974, pp. B 5-6), and Arnold Hottinger, "Faisal als Schlüsselfigur im Erdölkrig," *Neue Zürcher Zeitung*, November 29, 1973.

near-total. Israel had thereby acquired very advanced weapon systems. Its new military-industrial complex was rapidly constructing a self-sufficient armament industry. Its economy was booming, fueled by foreign (largely Jewish) investment and Arab labor from the occupied territories. It would not need much time to put the last screws into an atomic bomb. The territorially expansionist right current began to gain ground. Israel reverted to the traditional Zionist policy of the "creation of facts": more Israeli settlements in the occupied territories. In September 1973, the ruling coalition decided to build thirty-six new ones. Before the Fourth War, most of the Israeli political elite was convinced that its position was better than ever before. Only the looming energy crisis, Jerusalem thought, might endanger Israel's position.

PRELUDE TO WAR : THE DECLINE OF SOVIET INFLUENCE

In the two years before the 1973 war, Soviet influence in the Middle East declined, for five reasons. The first embraced Egypt's 1967 defeat, the death of Nasser, and Sadat's purge of pro-Soviet Ali Sabry group. The second was the expulsion of Soviet Advisers from Egypt, because Moscow rejected some of Sadat's arms requests, because Soviet officers were arrogant toward their Egyptian counterparts, and because Sadat felt, especially after Soviet inaction when Nixon mined and bombed North Viet Nam, that the Kremlin preferred détente with the United States to all-out support of Egypt. (The Soviets refused such support in part because of Israel's strength and American arms but more so because they have given priority to Soviet-American détente, owing to their fear of a Sino-American détente and their need for western technology.) This produced the third reason: Sadat's increasing concentration on relations with the United States, the only power which could push Israel out of the occupied territories. Saudi Arabia, Egypt's new ally, had traditionally close relations with the United States, and Sadat believed Washington might now pressure Israel because of increasing U.S. dependence on Arab oil. The fourth reason was the Shah's increasing concern with what he saw as Soviet-inspired anti-Iranian moves in Afghanistan, Pakistan, Iraq and Dhofar. The fifth was the decline, just before the war, in cordiality between the Soviet Union and Syria, in part the result of Syrian-Jordanian and Syrian-Saudi détente. Even Iraq showed some signs of displeasure with Moscow and a wish to improve at least economic relations with the West.

PRELUDE TO WAR : THE ARAB DECISION TO ATTACK

The pre-Fourth War Middle East realignment provided the basis for the Arab attack. Saudi Arabia had moved toward the leading role in the

Arab world, while radicals of the Right like Qadhafi and radicals of the Left like the Iraqis were weak and isolated. Egypt was allied with and financed by Saudi Arabia, and both had spearheaded a détente in inter-Arab relations, including Syria and Jordan. Arab use of the oil weapon was becoming increasingly likely in any case, and an Israeli-Arab war would clearly precipitate it.

It was against this background that the Egyptians and Syrians decided to launch the October 1973 war. They did so because they were no longer willing to tolerate Israeli occupation of their territory; because they were convinced that neither the Soviet Union nor the United States would force Israel out of the occupied areas, and that the Israelis would rapidly absorb them if they did not strike soon. They also believed their improved armament and troop training made their total defeat unlikely. They were not certain that the oil weapon alone would exert sufficient, or rapid enough pressure on the United States against Israel; and if it worked *without* a war, it would confirm Saudi supremacy and their dependence on Riyadh. Conversely, a new war in which they were not totally defeated would restore their dignity, raise their prestige and precipitate use of the oil weapon as a result of their, not Saudi, initiative.

Sadat may have feared a military coup if he did not attack. He calculated that his forces could initially cross the Suez Canal and that a cease fire would take place before Israel pushed them back across it. Basically, however—and this was the brilliance of his political strategy—Sadat was convinced that although Israel had profited more from Soviet-American tension, Egypt could profit and Israel only lose from East-West détente. He calculated correctly that the Soviets would have to resupply him with arms and, moreover, that the United States would prevent a repetition of Egypt's 1967 total defeat and might well thereafter force Israel-Arab negotiations and Israeli concessions in order to preserve East-West détente as well as to maintain the Arab oil supply.⁵

While there is no evidence that the Soviets instigated the Arab attack, they presumably were informed about it shortly before it began. They probably thought that to try to stop it or to refuse to resupply the Arab weapons lost would destroy their already declining influence in the Arab world, while the Israelis might not win a total victory and therefore the Soviets and their Arab associates would recoup some of the prestige they had lost in 1967. Almost certainly their support would encourage the

⁵Geoffrey Godsell of *The Christian Science Monitor*, who was in Cairo during the war, called this last point to my attention. See also Edmund R.F. Sheehan, "Sadat's War", *New York Times Magazine*, November 18, 1973.

Arabs to use the oil weapon against the United States, whose relations with the West Europeans and the Japanese would thus suffer. At the same time, they were convinced that Soviet-U.S. détente would enable them to cooperate with Washington in stopping the war before the Arabs were totally defeated or détente was wrecked.

The Americans, like the Israelis, anticipated neither the war nor the initial Arab successes. Indeed, the Nixon Administration's post-1969 attempts to pressure the Israelis toward settlement had given way, because of pro-Israel domestic pressure and a misreading of the 1967 cease-fire's instability, to de facto acquiescence in Israel's indefinite retention of its 1967 conquests.

THE FOURTH MIDDLE EAST WAR

COURSE

The Arabs gained strategic and tactical surprise over the Israelis, who had greatly underestimated their increased determination, discipline and military effectiveness, and initially registered unexpected success. They had been heavily armed by the Soviets, notably with SAM-6 missiles and new anti-tank weapons that proved most effective against Israeli planes and tanks. Moreover, they were better motivated than in 1967, for they were fighting, they felt, not for Palestine but for their own territory.

The Egyptians easily crossed the Suez Canal but did not rush for the Sinai passes, perhaps because they feared to go beyond their missile cover and expose themselves to Israeli bombing. The Syrians initially occupied most of the Golan Heights. Arab declarations during the war were moderate: their objective, they said, was recovery of the occupied territories not the destruction of Israel. Arab support of Egypt and Syria militarily and by limitation of oil production, was greater than in 1967. After initial hesitation, Jordan sent a small force to fight in Syria, but the Israeli-Jordanian 1967 cease-fire line remained quiet.

The Israelis, after they had mobilized, fought with the same tenacity and brilliance as in 1967. They soon drove the Syrian army back beyond the Golan Heights to within artillery range of Damascus. Then, in a dazzling example of tank warfare, they pushed across the central part of the Suez Canal and occupied considerable Egyptian territory west of it. Although they did not destroy the Egyptian forces before the imposed cease-fire, had the war continued they would soon have done so. But counting nearly 2,500 killed in seventeen days—three times as many as in 1967⁶—

⁶The equivalent for the United States would be about 175,000, compared with only about 40,000 during the eight years of the Viet Nam war.

was a great shock to an Israel always highly sensitive to casualties. When the first cease-fire occurred on October 22, Egyptian forces still remained on parts of the canal's eastern bank.

The cease-fire occurred after the Soviets became convinced that otherwise the Israelis would destroy the Egyptian army. The United States wanted a cease-fire because the Israelis had only partially won and would thus, Washington hoped, be more amenable to negotiations; also, the Americans desired to maintain the Soviet-American détente and to avoid reintroduction of Soviet combat forces into Egypt. The Egyptians desperately needed the cease-fire to avoid disaster. The Israelis reluctantly agreed because of American pressure.

The cease-fire immediately broke down, however, and the Israeli forces west of the canal cut off the Egyptian Third Army. This led to a brief but intense Soviet-American confrontation. Determined to force the Israelis to abandon these new gains, Moscow accepted, while Washington rejected, Sadat's proposal for a joint Soviet-U.S. force to guarantee the cease-fire and signaled this determination to Washington by ostentatiously preparing to send Soviet airborne troops to Egypt, unilaterally if necessary. Moscow probably also calculated that Nixon's troubles at home would make him more amenable to Soviet pressure.

President Nixon in turn signaled his determination (and perhaps also tried to alleviate his domestic difficulties) by declaring a worldwide U. S. military alert. The resultant Soviet-U. S. compromise set up a UN Emergency Force (UNEF) without (as the United States insisted) participation from permanent members of the Security Council, i.e., the United States and the USSR; and (as the Soviets insisted) ordered the Israelis to return to the October 22 positions when the first cease-fire went into effect, the objective being to relieve the cut-off Egyptians and provide for immediate Israeli-Arab negotiations under joint U. S. and Soviet auspices.

Ironically, and most importantly for the future, the result of this compromise was not primarily to make Sadat more pro-Soviet but to persuade him that Washington had resumed a more evenhanded position because for the first time since 1957 it had forced the Israelis, as it alone could, to a military move to which they were opposed—permitting the relief of the Third Army. Sadat felt that his strategy had begun to succeed: there were benefits in using the Soviets and the oil weapon against Washington and using Washington against the Israelis.

RESULTS

The political results of the war did not reflect the military ones. Israel was winning militarily when it ended and would have won decisively had it continued. Yet the war psychologically transformed the Egyptians and Syrians and thereby the Arab world. No longer did they feel degraded by the belief that Israel was invincible. Only when one remembers the centuries of humiliation suffered by the Arab courage culture can one understand the historic importance of this transformation.

Egypt's position was significantly improved. Sadat's strategy thus turned out to be correct: although militarily he had lost the war, he was seen by most Arabs to be undefeated. He unfroze the Arab-Israeli impasse, and he precipitated the use of oil as a political weapon. Jordan, militarily untouched by the war, found its prestige largely preserved by its nominal participation and its relations with the other Arab states no worse than before, yet its importance to the United States was somewhat lessened by the improved relations between Washington and Cairo.

Israel's position had worsened. The Arabs were no longer convinced that the Israelis were unconquerable. Gone, too, was Israel's confidence that the Arabs could not master modern complex military technology and could not mount a surprise attack. The country was internationally more isolated and therefore militarily more dependent on the United States, whose policy was evolving from near-total support of Israel toward a balancing position between Cairo and Jerusalem.

The shock to Israeli public opinion of all these developments was profound and lasting. The war put in question not only Mrs. Meir's government but also Israel's traditional policy of reliance on its own overwhelming power, rather than on compromise, for security against Arab attack.⁷ The Arabs in the conquered territories looked to the PLO and the rapid end of Israeli rule. The December 31, 1973 Israeli parliamentary elections resulted in some, but not decisive losses for the ruling Maarakh (Alignment) and in further polarization of Israeli policies among the strengthened right-wing Likud, the center around Mrs. Meir, Galili and Dayan, and the also strengthened moderates around Allon and Sapir. Yet the governing coalition's losses were less than expected and only partially to the Likud. The Alignment's losses reflected discontent with its conduct of the war, and Mrs. Meir's painfully reformed and weak new

⁷See the perceptive analysis by Terence Smith from Jerusalem, "The First Israeli Revolution", *New York Times Magazine*, December 30, 1973; Bererard Avishai, "Three Months of Yom Kippur", *The New York Review of Books*, January 24, 1974; Cf. from Jerusalem, "Wachsende Spannungen in Cis-Jordanien", *Neue Zürcher Zeitung*, December 13, 1973.

March 1974 coalition, under rightist pressure, seemed unlikely to last long or make major concessions.

With respect to the superpowers, widespread expectations that the Soviet-American détente would be slowed down or even wrecked by the war proved to be ill-founded. Despite their massive resupply of arms to the belligerents and the brief confrontation between them following the cease-fire, the agreements reached by the United States and the Soviet Union on a joint cease-fire resolution and subsequently on the UN Emergency Force showed that both had decided not to allow the Middle East crisis to interfere with East-West détente.⁸ Yet the mini-confrontation revealed what an unstable mixture of competition and cooperation Soviet-American détente is. For example, Moscow's resupply of the Arabs strengthened the position of those in the United States, such as Senator Henry Jackson, who cited this as well as Soviet refusal to allow the free emigration of Jews as reason to block an increase of Soviet-U.S. trade. The prewar decline of Soviet influence in the Middle East was reversed by the USSR's replenishment of the Arab armies and pressure for the cease-fire. Moscow also profited when the United States was subjected to Arab oil limitation and boycott and resultant alliance tensions and economic problems.⁹

Tension between the United States and its West European and Japanese allies developed during the war. Because their overwhelming dependence on Arab oil overrode their need to assure continued U.S. deterrence of the Soviet Union, and because they disagreed with the United States' near-total support of Israel, most European countries with U.S. bases refused to allow Washington to use them to send arms to Israel.¹⁰ Forced to use aerial refueling on Sixth Fleet carriers to stage replacement aircraft to Israel, Washington made public its resentment against its NATO allies. Conversely, the United States, because of this and also because of time pressure, did not inform or consult its allies before it began resupplying arms to Israel and later, when Nixon put U.S. forces on worldwide alert. The result was an alliance crisis. The Arab oil producers intensified this by favouring such pro-Arab states as Britain, France and

⁸In my view, the conduct of both powers during the war, including the massive resupply of arms to their clients, was predictable and relatively moderate.

⁹For an authoritative official Soviet view, see "The Fourth Arab-Israeli War", by Ye. Primakov, an expert on Arab politics and Deputy Director of IMEMO, in *World Marxist Review*, December 1973, pp. 52-59.

¹⁰West Germany did so only at the war's end. The Netherlands allowed the United States to use Rotterdam. Spain and Greece refused officially but reportedly tolerated the operations unofficially. Portugal, which allowed the United States to use the Azores, gets considerable oil from Angola and wanted to prevent U.S. policy in Southern Africa from becoming more anti-Portuguese. For critical analyses of this West European reaction, see Walter Laqueur, "The Idea of Europe Runs Out of Gas", *New York Times Magazine*, January 20, 1974, and "The Day of the Ostriches," *The Economist*, November 3, 1973.

later Japan in oil allocations while forbidding oil export to the United States and the Netherlands. The Soviet Union sat quietly by and profited as the United States and its allies let each other down.

AFTERMATH

In early November, however, having regained credit with Sadat by preventing Israel from destroying the Egyptian Third Army, the United States was able to emerge as the mediator between Israel and Egypt. Secretary Kissinger negotiated an interim agreement between Cairo and Jerusalem which prevented the breakdown of the unstable cease-fire line, guaranteed Egypt's non-military resupply of Israeli-surrounded Suez city and the Third Army, and provided for an exchange of prisoners, Israeli-Egyptian demarcation of the cease-fire line, and (implicitly) the end of the Egyptian naval blockade of the Red Sea to Israel-bound vessels at the Strait of Bab el Mandeb. It further provided for prompt Israeli-Arab peace negotiations without preconditions under U.S. and Soviet auspices—an arrangement falling ambiguously between "direct" and "indirect" negotiations. U.S.-Egyptian diplomatic relations were also to be resumed.

The resultant military disengagement negotiations in the Sinai failed, however, and made no progress even when they were transferred to Geneva, where the peace conference opened on December 18. Thereupon, in a remarkable feat of personal diplomacy, Secretary Kissinger succeeded in January 1974, after almost daily shuttling between Egypt and Israel, in negotiating a disengagement agreement. By it, Israel withdrew fourteen to twenty miles east of the Suez Canal, leaving thinned-out Egyptian forces in a narrow five to seven-and-a-half mile strip on the eastern bank, the U.N. Emergency Force in a three-and-a-half to five mile strip between them and the Sinai passes to the east.¹¹

The disengagement agreement was a genuine and ingenious compromise. From the Egyptian viewpoint, the Israelis had for the first time since 1957 agreed to evacuate territory they had conquered, the Suez Canal was back under Egyptian control, the oil weapon was working, Egypt was manoeuvring between Moscow and Washington, and Washington between Cairo and Jerusalem. Sadat saw Washington as no longer totally pro-Israel, for while the United States still guaranteed Israel's security, it no longer necessarily accepted Israel's definition of it.¹²

¹¹In February 1974 Secretary Kissinger persuaded Israel and Syria to begin disengagement negotiations, but their course seemed likely to be more difficult than the Israeli-Egyptian talks had been.

¹²For a revealing official Egyptian assessment of the change in U.S. policy, see an interview with Ashraf Ghorbal (Sadat's press chief during the 1973 war and thereafter Egyptian Ambassador in Washington) in *Akhir Sa'ah* (Cairo), December 5, 1973. (Joint Publications Research Service 60992, January 15, 1974, pp. 12-17.)

Although Iraq and Libya denounced the agreement, Syria showed some sign being willing to negotiate one itself and the PLO was split, with Arafat endorsing it. From the Israeli standpoint, the Egyptians had agreed to negotiations, they had abandoned their previous precondition for Israeli disengagement (that Israel would declare this to be only the first step in complete evacuation of the conquered territories), the level of Israeli mobilization could be lowered and thus the strain on the economy could be relieved, and the UNEF's interposition between the Egyptian and Israeli troops made another Arab attack much more unlikely. Nevertheless, the disengagement agreement, although a genuine compromise, must have confirmed for Egypt its political victory in the Fourth War. The stalemate was broken. Israel had modified its dependence on its own military strength in favor of a mix of force with more U.S. and UN guarantees, and had begun to withdraw from the occupied territories.

U.S. alliance tensions began to subside following the U.S.-sponsored interim and disengagement agreements and the increase of Arab oil supplies to Western Europe and Japan. But the wounds remained. Lingering anti-U.S. sentiments in Western Europe and anti-West European sentiments in the United States made Nixon's "Year of Europe" a hollow boast, maintenance of U.S. troop strength in Europe less likely, U.S.-EEC trade negotiations less promising, and the Soviets the only winners. But while Moscow's overall gain remained, its advantage over the United States in the Middle East was brief. The war did not result in a renewed massive Soviet military presence in Egypt. Moreover, the interim and disengagement agreements made the United States, at least temporarily, the sole mediator between the Arabs and the Israelis and seemed likely to ease the oil limitation and boycott. This could overshadow the fact that the prospective opening of the Suez Canal would enable the Soviet navy to increase its presence in the Persian Gulf and the Indian Ocean. In any case, the United States is already planning to counterbalance the Soviet presence by developing a naval base on Diego Garcia.¹³

Finally, the war almost isolated Israel politically. Western Europe and Japan were either neutral or pro-Arab. The Israeli position in the Third World was nearly destroyed, especially in Black Africa. The United States was the only supporter. Yet, while American popular and Congressional support of Israel remained high, it was neither as unanimous nor as impassioned as in 1967, and the Arab oil boycott of the United States brought it further into question. In early 1974, its continuance on the same level as before was uncertain. Most Jewish Americans had

¹³*New York Times*, January 22, 1974.

enthusiastically supported President Nixon's arms resupply of Israel during the Fourth War, but Secretary Kissinger's successful negotiation of the Egyptian-Israeli disengagement agreement had also been popular. An "evenhanded" policy would be more popular still if it resulted in easing or ending the Arab oil boycott. In short, the Fourth War had caused widespread interactions involving Middle East politics, U.S. alliance politics and the energy crisis.

A NEW PERSIAN EMPIRE?

A complete understanding of the energy crisis and Middle East politics requires an analysis of Iran's position. For Iran's rise has transformed not only the politics of the Gulf, and therefore potentially Middle East politics in general, but has led to it sharing with Saudi Arabia the leading role in recent world oil politics. In particular, the Shah has been the leader in the drive for higher prices, the form in which the energy crisis will in the future primarily affect international politics and economics.

Although we have not yet seen a new Persian Empire, we are not far from it. Iran is now one of the great military powers in the Middle East, rivaled only by Israel and Turkey. Its immense and growing oil revenues and purposeful development policy have produced rapid economic growth. It has replaced the British as the hegemonic power in the Persian Gulf. It has adjusted to Soviet-U.S. détente by somewhat improving its relations with the USSR, thus making Moscow's pressure on it and all-out Soviet support for Iraq less likely, while at the same time becoming less completely dependent on the United States. It has improved its relations with Saudi Arabia and therefore profited from rising Saudi power. Egypt's 1967 defeat, Nasser's death, and the isolation of Iraq — Tehran's and Riyadh's common enemy — have also helped Iran's position. It has become the protector of Pakistan. Internally, the Shah's autocratic government, although in the long run threatened by lack of popular participation and mounting subversion and violence, is acquiesced in by an expanding bourgeoisie and the landed peasantry, and strengthened by a wave of Iranian nationalism.

Iran's growing power spreads east as well as west and south. For the first time since the British left India in 1947, the traditional interrelationship between the Middle East and the Indian subcontinent has been re-established. This time, however, the center of power is not, as under the British, in Delhi, but as in Mogul times in Tehran.

The Shah thinks of Iranian foreign policy as primarily defensive. His main objective is to keep open the Strait of Hormuz, the entry into the Persian Gulf, so that Iranian oil can flow through that waterway unhampered and thereby bring in funds for economic development. He sees Iran threatened by a three-pronged, Soviet-directed pincers. The first prong, to the east, is Afghan expansionism and the independence movements in Pakistan's north and west provinces, Pushtunistan and Baluchistan. The importance of this first concern is clear: Iran is a multinational state, with Baluchis in the east, Kurds and Azerbaijanis to the north and west, and Arabic-speaking Khuzistanis to the south. The second prong is Iraq — Soviet-supported, territorially revisionist vis-a-vis Iran and Kuwait, and Iran's rival for hegemony in the Gulf. The third is the Dhofar rebellion in western Oman, armed, via Aden, by the Soviets.¹⁴ At Omani Sultan Qabus' request, the Shah last year sent a small force of helicopter and commandos to fight the Dhofar rebels, who have recently suffered some setbacks. He has, therefore, begun massive arms purchases, primarily from the United States, and a major base construction program. However, he will not automatically intervene against any rebellion in a Gulf sheikdom; if he is invited to send forces, he will consider taking action, a stance that leaves the prospect uncertain. He has meantime guaranteed Pakistan's integrity. This has disgruntled the Indians, who see themselves thereby deprived of some of the fruits of their 1971 victory. Yet India's alliance with his main enemy, the Soviet Union, and its oil purchases from and small air force training mission hosted by his main Arab enemy, Iraq, make the Shah's suspicions inevitable. However, India's spiraling payments deficit, because of high-priced oil imports, gave the Shah an opportunity to lend India \$300 million, in return, one may assume, for a modification of the Indian attitude toward Pakistan. Moreover, the Pakistani-Bangladesh reconciliation at the February 1974 Lahore Islamic conference (to which India, with sixty million Moslems, was not invited) weakened India's position further and strengthened Iran's.

Finally, as the 1973 war demonstrated, the Shah has moderated his de facto pro-Israeli policy, in view of King Faisal's attempt to bring pressure on Israel via the United States, and has given public support to the Arab position. He realizes that if Israel were again to defeat the Arabs totally, some of the conservative regimes in the Gulf might be overthrown and he (or Faisal) could do little about it. Yet Iran refused to participate in the limitation of Arab oil production, preferring rather to lead the drive to push up oil prices, from which it will profit greatly.¹⁵

¹⁴The Chinese, who want good relations with anti-Soviet Iran, no longer support this revolt.

THE ENERGY CRISIS

The worldwide energy crisis is a crisis of security and stability as regards the supply and the price of oil. Middle East oil is rapidly becoming more essential to consuming countries and particularly to the United States because of rapidly rising domestic demands. By 1980, demand projections indicate that the United States will get 35 per cent of its oil from the Middle East as compared with 8 per cent in 1972. Even at present prices, therefore, it will pay well over \$40 billion per year to Saudi Arabia alone. Because Saudi reserves are so much greater than those elsewhere, and because the other Arab oil-producing states in the Gulf (except Iraq) normally follow Saudi Arabia's lead, increased Saudi production has become the key precondition for adequate oil supplies. In 1972, Aramco produced 5.7 million barrels per day (mb/d); in 1973, before the Fourth War, it was producing 8 mb/d, but was then cut back to 6 mb/d; for 1975, the projection was 10 mb/d and for 1980, 20 mb/d. Kuwait and Libya have already frozen production at present levels; Iran can probably increase only from 5 to 7 mb/d; and Abu Dhabi is following the Saudi lead.

Oil prices have risen precipitously because of coordinated, successful pressure by the Organization of Petroleum Exporting Countries (OPEC), of which the most important members are Saudi Arabia and Iran. OPEC spokesmen justifiably argue that the prices of exports from the developed world, notably wheat and soybeans from the United States, plus steel, have risen more than oil. Meanwhile, besides surmounting inflation and dollar devaluation, the organization has forced the oil companies to grant its members stock participation and is moving toward nationalizing them. This is the first time (but probably not the last) that underdeveloped countries have successfully bargained collectively with the developed world for drastically higher prices for their primary products.

The energy crisis does not arise from a worldwide shortage of oil reserves. Even at projected 1980 levels of consumption, and even if no more reserves are discovered, there will still be at least ten years of oil production left. (The pre-Fourth War shortages in the United States did not reflect a worldwide shortage but inadequate U.S. refinery capacity.)

¹⁵See the revealing interview with the Shah by Oriana Fallaci in *The New Republic*, December 1, 1973 and another in *The Manchester Guardian Weekly*, January 19 1974. For Baluchistan, see Daniel Southerland from Quetta in *The Christian Science Monitor*, December 10, 14, 1973; also *The Economist*, November 17, 1973, p. 63, and P. H. (Peter Hess) from Quetta, "Guerilla in Baluchistan," *Neue Zürcher Zeitung*, October 10, 1973. For recent authoritative assessments of the Dhofar rebellion, from Salahah, see F. L. (Fred Luchsinger), "Ansatzpunkt der Subversion in Arabien", *ibid.*, October 21, 1973, and Joseph Fitchett, "Britain and the Shah Check Oman's Rebels", *The Observer* (London), March 3, 1974, p. 10.

During and immediately after the 1973 war, as it may again, the world energy crisis was made acute because the political instability of the Middle East and the limitation of oil production by the Organization of Arab Petroleum Exporting Countries (OAPEC) endangered the security and stability of oil supplies. During the war, OAPEC limited overall oil production and cut off shipments of the United States and the Netherlands. The limitation was not as severe as initially anticipated, for in return for pro-Arab declarations the Arabs soon classified Great Britain, France and Japan as "friendly" and exempted them. Nor was the boycott on the United States and the Netherlands as effective as had been expected; there was substantial "leakage", perhaps primarily from Iraq and Libya as political opponents of Egypt and Saudi Arabia. Nevertheless the limitation and boycott did lower economic growth in the noncommunist developed world. The cut-off to the United States was provisionally lifted on March 18, although by that date it was no longer particularly effective, because of the oil companies' reallocations of supply and Libyan and Iraqi non-compliance with the boycott. (The U.S. oil supply problem was caused by a nonattractive domestic price for oil, attributable to domestic legislation, as compared with the higher international price, and by the companies' resultant reduction of oil imports to the West.) But some limitation may well continue, or if called off may be resumed, in order to get Washington to put more pressure on Israel.

In considering the prospect for continued or renewed restrictions on oil production, let us first examine the economic and political motives pro and con. We may begin by dividing OPEC into two groups. Saudi Arabia, Kuwait, Abu Dhabi and Qatar have so few people and such great oil resources that they cannot absorb their projected oil revenues in economic development. Iran, Iraq, Algeria, Libya, Indonesia, Nigeria, Venezuela, Peru and Ecuador have such large populations that they can absorb all or almost all of their oil revenues. (Iran is a partial exception: it may have as much as a \$10 billion surplus over domestic investment in 1974.) The latter group, therefore, has no economic incentive to limit production, over and above pushing up the price in order to get the same or more revenue with less production. This was demonstrated during the October 1973 war when Iraq, Libya and Algeria, despite their politically radical position, did not follow the OAPEC decision but instead were motivated to continue and even raise production.

The case of the first group, however, is quite different and more important because projected world demand can be satisfied only by a massive increase in Saudi production. Yet the present and future oil revenue of these countries cannot possibly be efficiently absorbed in

domestic economic development — indeed, they may use their surpluses to speculate for political reasons in the international money market. This group, therefore, has prime economic incentives and some political motives to limit oil production, or at least its increase.

What are the economic reasons ? It will conserve their reserves and by enabling them to drive up the price of oil, increase their value, at least insofar as higher prices do not make alternative U.S. energy sources cost-effective. They will thus get more money for producing less oil. By holding less foreign currency reserves, their losses from possible future devaluations will be less. Moreover, such vast monetary reserves would only encourage other Arab states to demand more economic aid. They could also tempt military coups.¹⁶

What are the political reasons to limit production, or at least its increase ? Limitation was a response, before the Fourth War and even more during and after it, to Arab public opinion, which demands that Arab oil be used as a political weapon at least until Israel evacuates all the occupied territories. Several other reasons for limitation apply especially to Saudi Arabia and are important because that country is foremost in the use of the oil weapon. If King Faisal can use limitation effectively against Israel, it will make him the leader of the Arab world. Specifically, cutting down the flow of oil offers him some hope — indeed, the only realistic possibility — of pressuring Israel out of the Islamic holy places in Jerusalem, of which Faisal regards himself as the rightful custodian and whose recovery by the Arabs is for him a key issue. It would take the wind out of the sails of his radical rival, Qadhafi. It would be a blow to the Soviet Union and the Arab leftists, whom he regards as enemies of Islam and of the Arab cause and whom the United States, with which he wants to be on good terms, also opposes. Finally, it would further insure him and his successors against a coup in Saudi Arabia, for it would prove that he is an effective Arab nationalist not a tool of the Americans and thereby indirectly of the Israelis.¹⁷

What might influence the conservative Arab oil-producing states, especially Saudi Arabia, against limitation ? First, they are reluctant seriously and permanently to endanger their good relations with the United

¹⁶The main economic argument *against* limiting production is that the money obtained from higher production could earn more in the long run in stocks or real estate than oil would appreciate in value in the ground, since as alternative oil or other energy supplies are developed, the price of oil will fall. In my view, this argument does not outweigh the economic arguments for limitation, and certainly not the political ones.

¹⁷A coup is improbable during his lifetime, but he would like to insure against one after his death.

States. Faisal feels that the United States helped him in the past against his enemies, Nasser, Iraq, and the Soviets, and that he may need this help again. Second, limitation of production might be a one-shot weapon: if it did not work when once used, it would no longer be effective. Third, if pushed too hard, the United States might intervene militarily. (This seems highly unlikely but Saudi fear of the possibility does work against limitation of production.) Fourth, too rapid or extensive limitation would so stimulate the United States to develop alternative oil and other energy sources that Arab oil would be devalued economically and politically. Fifth, as the past few months have shown, limitation really hurts Western Europe, Japan and the underdeveloped countries, all of which are more pro-Arab than the United States.

Faisal and the other conservative Arab rulers are cautious and these reasons will reinforce their caution. For the moment, however, the weightier argument is for continued, if somewhat reduced, limitation so as to maintain pressure on the United States during the Arab-Israeli Geneva negotiations.

The energy crisis is now primarily a crisis of the rising price of oil: 400 per cent higher in 1973 alone. In the short run, for the next five years at least, the noncommunist developed world and the non-oil-producing underdeveloped world will, therefore, have to make massive monetary transfers to the oil-producing countries. The following table¹⁸ provides some idea of the amounts involved:

The impact of these transfers may best be considered in two

COST OF OIL IMPORTS (billions of U.S. dollars)			OIL REVENUES (billions of U.S. dollars)	
	1972	1974		
United States	5	21*	Middle East	9 57
Western Europe	11	51	Iran	2.5 16
Japan	4	16**	Venezuela	2 10

*Resulting in a \$13 billion trade deficit, more than the total U.S. gold and foreign exchange holdings.

**Almost equals Japan's total gold and foreign exchange holdings.

¹⁸From a study by the leading oil consultant, Walter J. Levy, quoted in the *New York Times*, January 17, 1974, p. 55. For general energy articles, see M.A. Adelman, "Is the Oil Shortage Real? Oil Companies as OPEC Tax Collectors," *Foreign Policy*, Winter 1972, pp. 69-107; Stephen Krasner, "The Great Oil Sheikdown," *ibid.*, Winter 1973, pp. 123-138; James E. Akins, "The Oil Crisis: This Time the Wolf is Here," *Foreign Affairs*, April 1973, pp. 462-490; Carroll L. Wilson, "A Plan for Energy Independence," *ibid.*, July 1973, pp. 657-675; Jahangir Amuzegar, "The Oil Story: Facts, Fiction and Fair Play," *ibid.*, pp. 676-689; Charles Issawi, *Oil, the Middle East and the World* (Washington: Georgetown University, Center for Strategic and International Studies, The Washington Papers, No. 4, 1972); Robert E. Hunter, "Can the

ways: in order of severity, with respect to four groups of states, (1) the non-oil-producing underdeveloped countries, (2) Western Europe and Japan, (3) the United States and Canada, (4) the communist countries; and as they pertain to two economic problem areas: (a) dependence on OPEC oil and (b) balance of trade and payments.

The monetary transfers required from the non-oil-producing underdeveloped world, which is almost entirely dependent on OPEC oil, will be so great, and (unlike in the developed world) so concentrated in essential industries — artificial fertilizer production, for example, rather than at least partially dispensable automobiles or heating — and can be so little offset by exports to the oil producers and investment by them, that they will result in large trade and payments deficits, rapid inflation, a major decline in economic growth, and consequent political destabilization. Monetary transfers from Western Europe and Japan, which are almost equally dependent on OPEC oil, will be economically much less disastrous although quantitatively greater, because they will be partly counterbalanced by exports to the oil-producing countries — notably weapons and other manufactured goods — and OPEC investments in them. Even so, such transfers are turning most West European and Japanese balance of trade and payments surpluses into deficits.

The impact on the American and Canadian balances of trade and payments will be much less, because both produce most of their own oil and will increasingly export food and other necessities to the oil-producing countries. In particular the United States, owing to its

Arabs Really Blackmail Us?", *New York Times Magazine*, September 23, 1973; Walter J. Lavy, "An Action Program for U.S. Energy Policy During the Seventies," speech to the 1972 annual meeting of the American Petroleum Institute, and "An Atlantic-Japanese Energy Policy," *Survey* Summer 1973, pp. 50-73; J. E. Hartshorn, "Oil Diplomacy: The New Approach," *The World Today*, July 1973, pp. 211-290; John C. Campbell, *Foreign Policy and the Future Supply of Energy*, Hearings before the Subcommittee on Energy of the House of Representatives Committee on Foreign Affairs, (Washington: GPO, 1972), and "Middle East Oil: American Policy and Superpower Survival," September-October 1973, pp. 210-217; Melvin A. Conant, "Oil Cooperation or Conflict," *ibid.*, January-February 1973, pp. 8-14 Arnold Hottinger, "Die arabische Welt zwischen der Israel-Front unter 'Erdölwäffe'?", *Europa Archiv*, April 10, 1973; "How the Arabs plan to spend their riches," *The Economist*, May 5, 1973.

For alternative energy sources, see U.S. Atomic Energy Commission, *The Nation's Energy Future*, (Washington: GPO December 1, 1973), and the articles by White, Nephew and Morrow in the M.I.T. *Technology Review*, December 1973, pp. 10-43.

I have also profited from a conference on the energy problems of Western Europe, sponsored in Paris, March 9-10, by the Centre d'études de politique étrangère and the International Institute for Strategic Studies; from a seminar on OECD energy policy at Massachusetts Institute of Technology, January 3-4, 1974; from a Columbia seminar by Professors Issawi and Hurewitz, January 23, 1974; from discussions with Professors Adelman, Alexander and Kindleberger of M.I.T. and Professor Meyer and Dr. Thomas Stauffer of Harvard; and from a discussion between Professor Adelman and William Tavoulareas, President, Mobil Oil, at the Harvard-M.I.T. Faculty Seminar on International Technology on May 10, 1973.

superior technology, availability of investment opportunities, influence and political will, probably will continue to export more weapons to the key oil producers (Iran and Saudi Arabia) and receive more investments from them than will Western Europe or Japan. Unless the OPEC states give major credits to and make massive investments in the non-communist developed OECD countries, the latter will have to move toward exchange controls. Competitive devaluations will perhaps intervene first, at least as long as no overall OECD policy is agreed upon to face the problem. Whether the OECD states can soon force the price of oil down again is uncertain.¹⁹ The Soviet Union and China are largely self-subsistent in oil. Some of the East European countries will suffer economically, although less so than Western Europe.

The energy crisis is thus revolutionizing international economics. The world is now divided in a third way, in addition to the previous two divisions between the developed and underdeveloped and among the communist, Western/Japan and nonaligned countries — namely, between energy producers and energy consumers. Moreover, for the first time in a century the terms of trade have been reversed. They now favour the producers of one primary product, oil, rather than those of manufactured goods, and the developed world faces a recession because of inadequate supply rather than demand. It seems likely that producers of other primary products will follow the OPEC example, albeit with less success, indeed, copper, bauxite and tin producers already are doing so.²⁰

In the three divisions the United States, even though it is in a domestic political crisis, has the best position: it leads in civilian and military technology; it produces most, and can produce almost all, of its energy and most other raw materials; and it is the world's greatest exporter of food. Western Europe and Japan are far worse off. They depend technologically on the United States, particularly on U.S.-controlled multinational corporations. They do not and cannot produce anywhere near their own energy requirements but are largely dependent on Arab oil. They do not export food, and Japan imports it. Some of their weapons are technologically inferior to their U.S. counterparts and therefore less attractive to OPEC buyers.

One can conclude that the energy crisis has ended, at least for the present, the short-lived West European and Japanese economic predomi-

¹⁹Cf Philippe Simonnot, "Payer le pétrole avec du papier," *Le Monde*, January 9, 1974.

²⁰C Fred Bergsten, "The World May Have to Live with 'Shortages'," *New York Times*, January 27, 1974, IV, p. 3, and his "The Threat from the Third World," *Foreign Policy*, Spring 1973; also Lester J. Brown, "The Next Crisis: Food," *ibid.*, Winter 1973.

nance over the United States. Not only could the Europeans and Japanese not translate their economic power into political power during the October 1973 war, but the subsequent oil limitation and price increases worsened their economic power substantially, especially vis-a-vis the United States.²¹

These developments were reflected in the February 1974 Atlantic-Japanese energy conference, called at U.S. initiative. It established a continuing coordinating mechanism to deal with OPEC. But France refused to participate in this, apparently because the Pompidou government saw it as an issue that could be used to regain domestic popularity and overcome its weakness, and because of a Gaullist reflex (like the General's own reaction after the 1962 Cuban missile crisis) against rising American power. As a result, EEC disunity grew, further progress toward Europe's political union seemed unlikely, and French-U.S. relations deteriorated sharply — all developments triggered by the Fourth Middle East War and the energy crisis.

But caution about the future is still in order. The energy situation will no doubt be considerably modified within five years. Recent high prices create such incentives for oil exploration, development of alternative energy sources and limitation of consumption that by the end of the decade supply will probably again exceed demand. By 1980 the glut may be so great that oil prices will have risen less than those of other products.²² The present high oil prices should begin to fall even before that. Nor is it likely that an Arab limitation-cum-boycott will ever again be as effective as it was in late 1973. In fact, by early 1974 its effectiveness had already been greatly reduced. Why, then, have the OPEC states raised prices so high? Two factors have probably been primary: the desire to exploit demand so as to obtain quickly the maximum amount of external financial resources for industrial development, and overconfidence and shortsightedness resulting from OPEC price successes and the efficacy of the Arab oil export policy of late 1973.

Yet in early 1974 OPEC euphoria was declining. Saudi Arabia was increasingly concerned lest high oil prices push the developed world into a recession and/or such inflation that OPEC revenues would in fact be devalued. High prices also endangered the recent spread of support for the Arabs in the underdeveloped world. While chances for some arrangement between OECD and OPEC to limit the destabilizing effects of higher oil

²¹Cf. the excellent analysis by Michel Tatu, "La hiérarchie des puissances", *Le Monde*, January 1, 1974.

²²See "The Coming Glut of Energy", *The Economist*, January 5, 1974.

prices are therefore growing brighter, rapid or drastic action seems unlikely. Within OPEC the division between the populous and sparsely populated countries will be the determining factor with respect to lowering prices as it was when it came to raising them.

The main results of spiraling oil prices have been a worsening in the position of the non-oil-producing underdeveloped world and the improvement of the U.S. position vis-a-vis Western Europe and Japan. The fall of prices may modify but will hardly reverse either trend. In the case of the United States, the redressment of trade and payments balances resulting from dollar devaluations was underway before the energy crisis. The rapid rise of the dollar in the world market in late 1973 and early 1974 merely made clear the improvement of the U.S. position. This is a mixed blessing, however, for the dollar's rise will again worsen the U.S. balance of trade and might set off a destabilizing round of competitive devaluations.

The lack of unity and decisiveness in the European response to the energy crisis and the political, military and economic impotence of Western Europe and Japan — demonstrated in the Middle East, where their economic and therefore their political interests were more vitally involved than those of the United States and the Soviet Union — destroyed two prevalent myths: that their economic strength made them great powers, and that Western Europe was well on the way to unity. In neither case did their pro-Arab declarations prevent OPEC from raising oil prices diastically. Not surprisingly, the Shah, the leader in pushing up prices, was not impressed by them.

Yet the United States could ill afford to be gratified by its allies' weakness. Although rationally their experience should renew their consciousness of dependence on American leadership, frustrated states, particularly those with memories of empire, have historically not always acted rationally. This was clearly true of France, and might be especially true of Japan, whose energy setback was compounded by the three previous Nixon "shocks" (China, devaluation and the soybean embargo) and by the anti-Japanese demonstrations attending Prime Minister Tanaka's January 1974 visits to Bangkok and Djakarta.

One may well question whether such a militarily powerful nation as the United States or such potentially powerful entities as Western Europe and Japan will long remain so dependent on costly OPEC oil. While the United States can reduce its dependence and therefore will probably not bring its power to bear, Western Europe and Japan seem unlikely in the near future to acquire the will to build the necessary military power. Yet the possibility that all three could force the issue will continue to limit OPEC's freedom of movement.

The American response to the energy crisis will be quite different from that of Western Europe and Japan. The latter, with the exception of Great Britain and Norway, have so few alternative energy sources that they will remain primarily dependent on OPEC oil. However, a consensus developing in the United States before the Fourth Middle East War, and greatly furthered by the Arab oil boycott, holds that American security and maintenance of superpower status require U.S. dependence on Middle East oil to be drastically reduced by 1980 or 1985 — from 35 to 40 per cent of American consumption to between 10 and 15 per cent — through development of other oil and alternative energy sources. A crash program is now underway.

The United States can and will rapidly overcome that minor portion of its current shortage of petroleum products caused by deficits within the country. More refineries and deepwater ports for supertankers will be built, and offshore and Alaskan prospecting and drilling will be stepped up — with unpredictable but quite possibly substantial results — as the environmentalist opposition is overcome. Alternative energy sources include oil and gas obtained from the almost limitless U.S. coal reserves, oil from oil shale and (Canadian) tar sands, and nuclear power. All these are now economically much more attractive, and Washington appears determined to push their development. U.S. R & D appropriations for developing alternative sources are being greatly increased — President Nixon has proposed \$2 billion per year for the next five years. Also, as alternative non-petroleum energy sources are developed they will have to be protected by import quotas from being driven out of production, for example by the OPEC dumping oil on the market at cheap prices.

Because of technological lead-times, however, major substitution for Middle East oil is generally agreed to be impossible during the next decade. Therefore, barring an unlikely drastic limitation of consumption, increased American dependence on Middle East oil for the rest of this decade remains inevitable. This means that to maintain its projected oil consumption in the 1970's the United States will continue to be dependent on the growth of Arab and especially Saudi production.

U.S. POLICY

U.S. strategic objectives in the Middle East are to prevent or at least postpone a fifth Middle East war, to contribute to an Arab-Israel settlement, and to limit Soviet influence to prevent developments in that theater from worsening U.S. alliance relationships; to ensure adequate Middle East oil supplies to the United States and its allies, while preventing the United States from becoming more than marginally dependent on Arab oil; and to guarantee the independence and security of Israel.

The United States has several important assets for attaining these objectives. It retains regional naval and air superiority. Its ally, Israel, is still militarily the strongest regional power. Its détente with Moscow reduces the possibility of a superpower military clash in the area. Unlike Western Europe and Japan, it has potential alternative sources of energy to Arab oil. Its leadership in negotiating the Israeli-Egyptian interim and disengagement agreements improved its position vis-a-vis the Arabs, thus leaving them less dependent on the Soviets.

U.S. liabilities, however, are also sizeable. Egypt and Saudi Arabia, although less hostile, are not yet satisfied with U.S. policies. Soviet influence in the area, while less than at the Fourth War's end, remains significant, and it is not clear how firmly Moscow is committed to reaching a lasting settlement. America's alliances with Western Europe and Japan are still strained because of its previous support of Israel, its lack of consultation with allies, and the Arab oil limitation. Strong domestic pro-Israel elements curtail the U.S. government's freedom of action. Not least, the prestige and effectiveness of the Nixon Administration are seriously sapped by the President's loss of authority and possible removal or resignation because of the Watergate affair.

In order to prevent the breakdown of the cease-fire, to reverse or at least ease the limitation of oil production, and to move toward an overall peace settlement, the United States must use the momentum of the interim and disengagement agreements to ensure that Israeli-Arab negotiations at Geneva make progress. This will require continued active U.S. mediation, including (a) pressure on Israel for evacuation of almost all of the occupied territories, without which a settlement is impossible, and (b) efforts to convince the Arabs that the United States is not hostile to them but will take steps to become less dependent on them for oil so that their present capability for applying pressure will be only temporary,²³ and will continue to protect Israel's security against an Arab attack.

The United States, as well as Western Europe and Japan, should also offer other inducements to oil producing countries not to limit oil production: technical aid to develop and diversify their economies so that they can absorb more capital at home and not be indefinitely dependent on the wasting asset of oil; investment in the developed world, even at the risk of them using their investments for political purposes; and recognition and participation in world trade and monetary affairs.

²³ In the long run, Arab oil limitation will probably turn out to have been a blessing in disguise for the United States, for without it a crash alternative source program would have come later, if at all.

The U.S.-convened discussions with the West Europeans and the Japanese should be used to coordinate their Middle East and oil policies and thus ease the alliance crisis. The United States should deal with the EEC Commission (not with its members, less France) and Japan, on preparing common positions on the territorial issue, on bargaining with OPEC and on sharing the burden of oil shortages. Rather than criticizing France publicly, and thus worsening the alliance crisis, weakening the EEC, and playing into the hands of the Soviets. Washington should deal with the Community even at the risk of slower progress toward a coordinated approach. Long-term U.S. interests in West European unity and the Atlantic Alliance are more important than short-term gains vis-a-vis OPEC or Soviet-American exclusivist bilateralism in the Middle East or elsewhere. Subsequent discussions with OPEC should include an attempt to lower current oil prices and relate them to other raw material prices, to channel the OPEC states' investments into the developed world so as to relieve balance of payments problems there,²⁴ and to ease the impact of higher oil prices on the underdeveloped world.

The United States must bargain with the Arabs for oil, and with them and Israel for a territorial settlement, from a stronger and more evenhanded policy.²⁵ After coordination with its allies and full discussion with the Israelis, Arabs and Soviets, it should privately propose to Egypt, Syria, Jordan and Israel its own plan for territorial settlement and convey to them its determination to press for implementation. Israel should give up almost all of its conquests and in return receive effective international and U.S. security guarantees. The Arabs should recover almost all of their 1967 losses, but they would recognize Israel and be restrained by a permanent UN force and a U.S. military guarantee from again attacking it.²⁶

Israel would return Sinai to Egypt. The West Bank and the Gaza Strip would be given the option, through an internationally supervised plebiscite, of independence or adherence to Jordan. Israel would keep the Latrun salient in the West Bank, near the main Tel Aviv-Jerusalem road, for the security of the road. Israel would also keep that part of the Golan Heights directly overlooking the Sea of Galilee, from which before 1967

²⁴. If investments are so channeled, exchange controls may have to be adopted by most or all of the developed countries.

²⁵. U.S. military intervention in the Arab oil countries is neither practicable nor desirable. Most of the oil installations would be sabotaged before they could be seized. Intervention would drive Arabs and most of the rest of the Third World into the hands of the Soviets, and America's allies would violently oppose it. It would commit the United States to permanent imperial occupation of the area and endemic sabotage and guerrilla war.

²⁶. For a similar plan, see Zbigniew K. Brzezinski, "A Plan for Peace in the Middle East", *The New Leader*, January 7, 1974.

Syria shelled Israeli settlements, and return the rest to Syria. A naval contingent of the UN force would patrol the entrances to the Red Sea and the Strait of Tiran to guarantee Israel's access to its southern port of Eilat (which Israeli occupation of Sharm el-Sheikh did not guarantee during the 1973 war).

Jerusalem, the most difficult problem, is not an Israeli security issue. It is as holy to Christians and to Muslims as to Jews. The United States has long been committed to its internationalization. The Walled City and the other holy places (e.g. the Mount of Olives) should be internationalized. The rest of East Jerusalem would become the capital of the West Bank (except that the Israeli sector would come up to the Wailing Wall), and West Jerusalem would become the capital of Israel, with free circulation throughout the city. As to the Palestinian refugees, a limited number should be allowed to return to Israel, and all would be compensated and resettled by means of a multibillion dollar international program with major U.S. participation. The Arab states would sign a peace treaty with Israel within the borders set forth above and cease to support the *fedayeen*.

The UN force would be stationed in a demilitarized strip on both sides of these agreed Israeli-Arab frontiers. The force's commander would be named by and be responsible to the UN Secretary-General, subject to confirmation by a majority of the permanent members of the Security Council—i.e., neither the United States nor the USSR could veto him. The force could be removed only by unanimous decision of all the permanent members—i.e., the United States or the USSR could veto its removal. In addition to multilateral international guarantees of the agreed Israeli-Arab frontiers, the United States would unilaterally guarantee them. Some will oppose such a guarantee because it might involve the United States in military action, but without the guarantee the Arabs or the Israelis would be more likely to miscalculate and launch an attack. Judging by the 1973 war, an Arab attack might so endanger Israel's security that the United States would feel compelled to intervene—but perhaps at such a late stage as to run the risk of a major superpower confrontation or a total Israeli defeat. Conversely, a U.S. guarantee would preclude another Israeli pre-emptive attack such as those in 1956 or 1967, and Israel would have to pay this price in order to continue to obtain American arms.

Israel would thus no longer have the Sinai as a buffer zone against Egypt. Nor would the Sinai or the West Bank be demilitarized since Egypt and Jordan, particularly after what they interpreted as near-victory

in the 1973 war, can hardly be expected to have so much of their territory permanently demilitarized while none of Israel's would be.

This plan would cause a revolution in Israel's security policy, which the Israelis will be more reluctant to accept. Israel would no longer be able to rely only on its own resources and military forces to guarantee its security. Rather, it would have to depend in part on international and U.S. guarantees. The 1973 war showed that the Arabs are becoming stronger militarily. Overwhelming Israeli military superiority did not prevent the 1973 Arab attack and the resulting heavy Israeli casualties, and a *fortiori* it would not again. If no settlement is reached which Egypt can accept—and in my view Cairo will accept nothing less than near total Israeli evacuation of the conquered territories—it will attack Israel again, with all that may involve, including the danger sooner or later of Israeli atomic retaliation and superpower military involvement. Thus, the alternative for Israel is another war. The Arabs, convinced, however wrongly, that they came close to winning in 1973, are most unlikely to accept anything less than near-total Israeli withdrawal.

Moreover, given its need for Arab oil and its new, more evenhanded policy, evident in rhetoric and action, the United States will no longer promise Israel unconditional support. Secretary Kissinger has said that the pre-fourth War situation was "intolerable". Washington forced Israel to allow relief convoys to pass through its lines to the surrounded Egyptian Third Corps. Israel would hardly have agreed to the January 1974 disengagement unless the U.S. Government had brought considerable pressure to bear. Most significantly, Israel is now nearly isolated, with the United States its only protector and source of armor. The October 1973 war showed that in the event of another Soviet-armed Arab attack it can be secure only if certain of a massive U.S. arms resupply. Thus Washington has an irresistible means of pressure on Israel and should use it to negotiate a settlement.

This plan, in my view, accords with American interests, even though it involves an open-ended U.S. commitment to guarantee Israel's military security. It is also in Israel's long-term interest. Continued instability in the Middle East and another Israeli-Arab war, perhaps escalating to atomic war, would be disastrous for world peace, Israel's security, and the U.S. oil supply.

Such a plan is easier to outline than to put into effect. A settlement along these or similar lines will probably not be reached swiftly. The United States could try to impose such a plan, but it is unlikely to do so

for domestic political reasons. The Arabs may eventually accept it, despite the Latrun, Golan and Walled City provisions, in order to get back the rest of their occupied territories. Israeli resistance, however, will be so fierce, and the Nixon Administration is now so weak, that Washington may not be able to force Israel to accept it. If U.S. leaders falter, as they did after the 1956 and 1967 wars, the United States will again lose its influence with the Arabs, the Soviets will regain their influence, and another war will be inevitable.

The November 1973 interim agreement and even more the January 1974 disengagement agreement were encouraging beginnings. U.S. pressure on Israel has been applied and the U.S. standing in Egypt and Saudi Arabia has been improved. Continued American diplomacy will be needed to bring about progress toward settlement, to end the Arabs' limitation of oil production, and thus to achieve U.S. aims in the Middle East.



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A REALISTIC MILITARY STRATEGY FOR INDIA

MAJOR YOGI SAKSENA

INTRODUCTION

A DEEPER analysis of recent world events indicates that Asia would be the focal point of Great Powers' inter-action in the remaining years of the twentieth century. The global power struggle was confined to a struggle for control of Europe till World War II, then it shifted to the Middle East during the 1950's and 1960's and now it has moved to Asia. Three factors are responsible for this shift. First, the emergence of ECM as a powerful economic force, making economic domination of Western Europe impossible by any super power, including the economic giant, the USA. The fall of the mighty dollar is a clear indicator of this. A corollary is the likely politico-military unification of Western Europe in case of a Soviet military threat. This diverted the latter's sphere of activity first to the Middle East and now to Asia. Secondly, the emergence of China as a super power, in its own right, coupled with the USA's desire to contain the Soviet Union by befriending China, has resulted in a shift towards Asia. The USA has given up the policy of ringing the communist world with military bases and is instead creating rival power centres which are mutually balancing such as the ECM and Soviet Union in Europe, Russia and China in Central Asia and China and Japan in the Far East. Thirdly, America under Nixon concerned itself chiefly with a trade-oriented foreign policy and that led to a detente with China and ditching Taiwan, because the untapped economic resources of China and the absence of consumer industry in that country can sustain the boom in America's industrial economy.

The emergence of Japan as an economic giant will result in conflict of interests in the Pacific with the USA. The Pacific is vital to Japan's economic survival and is important to the USA since Western Europe has ceased to be a market for American goods. Furthermore, Japan will be the USA's rival in the Chinese market and that is why Japan is making independent contact with Mao's regime.

The Indian Ocean is becoming an area of rival power interests after the withdrawal of the British west of Suez. Whereas the USA is moving

the Seventh Fleet westward, besides arming Iran to make it a dominant power in the Indian Ocean, the Soviet Union is making intensive efforts to seek an outlet into the Ocean. The littoral States of the ocean are a rich source of ready-made raw material and their developing economies can be guided to suit the Big Powers' interests. As against this, Africa's resources are too under-developed for any short-term investment by the super powers to pay off. Africa will be tapped only after the Asian countries become strong enough not to allow economic exploitation of their developed resources.

Thus we see that India has to guard her interests in the midst of Big Power manipulations in Asia and the Indian Ocean. Since it is still not powerful enough to thwart these manipulations on her own, it has to evolve a course of action which best serves her interests and is feasible in the light of Big Power interests in the region. A puritanic non-involvement in the interaction of military forces in the region would prove abortive and hoping to keep the Super Powers out of Indian Ocean would be wishful thinking. It is time we take a look at the new realities. We would, therefore, first analyse the interests and capabilities of various Powers likely to influence events in the region of India's interest. The role of the USA has not been separately analysed since its interests have been brought out while discussing the nations of this region.

REGIONAL NATIONAL INTERESTS

USSR

The Soviet Union, in addition to China, is likely to exercise the greatest influence in South Asia in future, greatly overshadowing the influence of the USA. It is basically a continental land power. Its experience of Cuba in 1962, its restricted manoeuvrability in the Arab-Israeli War of 1967 owing to the Straits of Bosphorous and its inaction during the Haiphong harbour in 1972 by the USA have made it realise that without domination of the seaboard, its quest for global influence is foolhardy. It recognises the significance of the marginal crescent, to use Mackinder's definition, as a strategic outlet to the oceans that could secure a jumping board to the eventual domination of the empires of the sea made up of islands of the insular crescent. Therefore, it is imperative for the USSR to consolidate its hold in Iran, Afghanistan, Pakistan and India where its land-power status can have maximum leeway. On the East, it is hemmed in by a powerful and belligerent China, thwarting its quest for a sphere of influence in SE Asia. Only the above four states from Iran to India can make its power in the Indian Ocean felt, on which also depends its influence in East Africa and the oil-rich states of Middle East, Egypt having failed to help

the Soviet Union neutralise Western influence in the Mediterranean. The Brezhnev Security Plan aims at this squarely. It conforms to the traditional aspirations of Imperial Russia since the time of Catherine and Peter, the Greats.

The point to be borne in mind is that Pakistan has a key role in the USSR's designs. While the USSR will aid India to weaken recalcitrant and Western-aligned Pakistan to the extent it will accelerate replacement of Chinese and American influence by its own; it will however not permit India to dominate Pakistan and thereby become powerful enough to resist Russia's entry in this region and thus the Indian Ocean. The Pamirs, bordering the Soviet Union, China, Afghanistan, Pakistan and India, are an area of Great Power rivalries. The Soviet Union will seek to secure them as a first step. The Wakhan corridor, a very narrow strip of Afghan territory which separates Pakistan and the Soviet Union, is likely to be the tunnel to Pakistan.

Similarly, since the Soviet Union is at present not in a position to contain China in South and South East Asia, it is interested in India serving as a counterpoise to China. This will help to limit China's influence in this region. However, it would aim at pressurizing China by its substantial presence in India rather than allowing India to grow bigger for its boots. Its presence in India will help it to close in on China from South East as well. In the same context, the Soviet Union is developing firmer links with Japan to contain China notwithstanding the simultaneous American effort to form a Washington-Peking-Tokyo axis.

CHINA

China is the most potent factor affecting India's military options. The end of the war in Vietnam has resulted in almost a victory for communism and China. The day when North Vietnam will engulf the South can be foreseen. It has initiated the American military withdrawal from the Far East. It also emphasizes the return of the pre-war mood of isolationism in America. China can now aim at concentrating against the USSR and neutralising India, the country which can seriously interfere with its designs of hegemony over South and South-East Asia. Besides the dogma of a world-wide socialistic proletariat society and historical Chinese chauvinism of it being the ruling centre of Asia, it also needs economic resources of the countries of the Asian seaboard for its teeming millions. Let us survey Chinese conventional military activities in this region. The nuclear threat will be analysed later.

China has consolidated her presence in Tibet, an area of aspiration for the USSR and a country which was maintained as a forward buffer by Imperial Britain even at the height of its power. China has 60 to 100 thousand infantry troops supported by medium and light tanks and artillery in Tibet. Chinese military threat is focused mainly on the Chumbi valley, since this controls the approaches to Sikkim and Bhutan, both of which China regards as her legitimate areas of influence and included within her traditional boundaries. The Sikkim provocations of 1967 support this hypothesis. China will achieve tactical military superiority by overwhelming forward positions at Nathu La and Jelap La. The geographical terrain where these positions are located lacks depth for an area defence. This is valid for the Chinese side too. The next position militarily tenable that too tenuously, is the Siliguri corridor. Therefore, a breakthrough at the point of watershed could possibly be decisive for both sides. The Indian military theatre is like the European theatre which lacks depth. It is so because after 1947 we gave up the forward policy of military presence in Tibet.

In Jammu & Kashmir, the Chinese have considerable forces in Aksaichin. It would be incorrect to assume that China has no further aims here, besides the historical silk route to the Middle East through Gilgit. At the instance of and in collusion with an ever belligerent Pakistan, China might strangle Ladakh with Pakistan attempting a blitzkrieg in the valley with the support of guerilla elements. This would be done by recognising 'Azad Kashmir' as a sovereign state and helping it to liberate 'occupied' Kashmir from 'Indian colonial occupation'. China would simultaneously activate the eastern borders.

In the Indian ocean region, China has seduced Maldiv, a republic 700 km from Kerala, to establish exclusive diplomatic ties with it. This island nation is largely Muslim; its army is being trained by Pakistan and it acted as a base for Pak Navy in 1971. In addition, Ceylon under Mrs. Bandaranaike is fairly close to China which has supplied torpedo boats to it. Ceylon has also issued stamps honouring Mao.

China is also befriending Iran, a close Muslim ally of Pakistan. Empress Farah Diba's visit to China in 1972, with Iran's Premier, is a positive indication in this direction.

Another factor to consider is the possible rapprochement between Taiwan and China which is being fostered by America. The death of the Generalissimo will consummate the process of communisation of Taiwan. In that eventuality, China would be able to pull back 45 divisions

from that front to be employed against the USSR and 'its ally' India. This would serve American interests.

JAPAN

Along with the detente with China, the USA has permitted qualified re-arming of Japan. This is in accordance with Kissinger's theory of mutually balancing centres of power viz. USSR-China and China-Japan. What perhaps America does not foresee is the Japanese Frankenstein. The economic boon in Japan because of its industrial potential can only be sustained by the markets of economically under-developed Asian nations including China. This necessitates exclusion of the USA from these markets and domination of trade routes in the Indian Ocean. Control of the straits of Malacca becomes strategically important to Japan for its Asian trade. It is also being driven into this course of action because it is losing the American markets for its electronic and automobile industry owing to latest American Colbertism. Additionally, Japan's economic security is vitally dependent upon the raw materials from South-East Asia.

Japan's Fourth Defence Reorganisation Programme, adopted last year, reveals a strategic doctrine and military spending, twice as high as at any time previously. The Japanese Army, officially known as Ground Self-Defence Forces, will considerably increase its mobility and firepower at its present strength of 1,80,000 men and the Air Force is in for big modernisation with the replacing of 300 F-86 Sabre Jets. It is the Navy that will increase three-fold to 3,00,000 tons. This will make Japan the seventh strongest military power in the world. This is so when it is undergoing limited militarisation. Like Germany in 1933, it is likely to shake off the shackles and follow an independent military policy in the near future. The motivation comes because of the Sino-American detente which has made Japan suspect its military ability to pursue an independent trade policy and rely upon the USA to contain China. Simultaneously it is settling its disputes over four islands retained by Russia after the World War II, in order to undertake oil exploration in Siberia and also use Russia as a lever against China.

IRAN

Iran is a new factor in India's security calculations. Its large-scale acquisition of sophisticated arms, its oil policy, politico-military alignments and its strategic location in the straits of Hormuz are likely to make it a regional power. It is pertinent to assess whether Iran's regional ambitions

will aim at countering India's regional potential in the subcontinent and in the Indian Ocean area.

Iran is important to the bigger powers because it is the third largest producer of oil in the world and the biggest exporter. The USA will be short of oil by 400 million tonnes annually in the 1980's. The Soviet Union trade with Iran will shoot up above a billion dollar in the next 6 to 7 years. China too is wooing Iran as indicated by the visit of Empress Farah Diba and Iran's Premier to China.

Iran's military problems are only with Iraq and the Arab Emirates. The Shah has declared that Iran's defensive frontiers extended beyond the Persian Gulf into the Indian Ocean. Till sometime ago, Iran had only the defence of the Gulf as the focal point of Iran's oil wealth. Now in addition, it also wants to ensure free passage through the straits of Hormuz, the narrow waterway at the eastern end of the Gulf through which tankers pass. It wants to dominate the Indian Ocean contiguous to the Gulf of Oman security perimeter. It is acquiring, in this context, 3 destroyers, 4 frigates with Seacat missiles, 140 Phantom Fighter-bombers and 800 Chieftan tanks. It is also believed to be getting 500 helicopter gun-ships, C-130s and latest F-14 and F-15 fighters along with laser and TV-guided bombs and the latest air-to-air missiles.

The acquisition of such sophisticated military hardware will not necessarily make Iran an effective regional power in the absence of operational experience and technical skill required by its officers and men. What, however, can happen is that it might pass its existing inventory of American arms, F-86 fighters, M-48 tanks and M-102 APCs to Pakistan. Additionally, Iran visualises India as a growing regional power which might threaten its regional interests, particularly in view of the secessionist tendencies in Pakistan. Therefore, Iran has a vested interest in maintaining Pakistan as a powerful counterpoise to India and has a stake in its integrity. It serves its interests to strengthen Pakistan militarily. It is well on the cards that in the event of an Indo-Pak war, Iran will make its military hardware available to Pakistan. This evidently has the blessings of the USA, since the basic character of CENTO is hostile to India. Simultaneously it is also preparing for the contingency, should Pakistan break up. Ultimately, the loss of Bangladesh will not result in reducing the threat from Pakistan on our western borders.

INDONESIA AND CEYLON

These two countries are being considered together because of their considerable naval potential in the Indian Ocean. Indonesia has the

wherewithal and the autocratic political set-up to replace the British naval presence in the Straits of Malacca. Sumatra is the Malta of the Indian Ocean. Indonesia's membership in ASEAN along with Singapore invests the former with immense strategical advantage in regulating trade between the Indian and Pacific Oceans. If supported, it can checkmate any expansionist moves on the part of China or Japan into the South-East Asian seaboard counter. At present it has a fairly neutral political regime.

Ceylon is the fortress of the Indian Ocean. Its strategic importance needs no elaboration. Its close ties with China, as discussed earlier, could be a potential threat to our security.

BANGLADESH

Our ties with this country are no doubt very intimate at present. This may not be so in the future. Bangladesh needs massive aid for development which India cannot provide. Therefore, it will become a hotbed of cold war tensions amongst the USA, USSR and China as soon as the sentiments of hatred against Pakistan subside. The USA is perhaps the only country which can dole out huge amounts and will, therefore, establish its influence in Bangladesh. On the other hand, the Soviet Union has some leverage because of its close ties with India and the direct role it played in Bangladesh's liberation. It is also keen to consolidate its presence in the Indian Ocean. However, what will count in Bangladesh is not past favours but money for the future. The Soviet Union's influence will be limited by this factor.

China has forever been seeking entry into the Indian Ocean for furthering its interests in South Asia and Africa. Bangladesh provides an ideal area for seeking this outlet since being a small and economically weak nation at present, it is most susceptible to Chinese influence and export of communism. Political parties of communist hue have considerable influence in Bangladesh.

Therefore unless India plays its cards like a Machiavelli, it is likely to find itself persona non grata in Bangladesh. It is difficult to predict how long it will take for the deep-rooted Hindu-Muslim animosity to die down. Therefore, India should be prepared to fight a cold war against China and America in this country and at the same time not allow the Soviet Union to fire the gun from its shoulders. India will have to be vigilant in the Bay of Bengal and prevent China from seeking a

submarine base at Chittagong. China also has the capability of a two-pronged attack, sealing off the Siliguri corridor and using the famous Ledo road for a massive attack.

PAKISTAN

The greatest misfortune of Pakistan has been its demagogic rulers who have sacrificed the country's vital interests in their pursuit for power. Even today in spite of the loss of East Bengal through the high-handedness of the Yahya Government and history of exploitation by the Western wing, the rulers are following a policy of repression against NWFP and Baluchistan. This in turn gives rise to greater defiance of the Central authority in these provinces and thus greater repression by the Centre. It is a vicious circle. Till such time as the landed aristocracy, Punjabi bureaucracy and army, rules supreme, the vested interests of a section of people will take priority over national interests. The prime urge to retain power is motivating the present government in subverting democratic governments in the recalcitrant provinces, and once again generating the mass hysteria of war against India. What is needed in Pakistan is a statesman as against a politician, who will consolidate the country's unity and generate economic revival. The timeworn technique of diverting public opinion from internal problems by raising the bogey of a threat from India is still being employed by the rulers. In the absence of a democratic government responsive to the people's needs and free from the stranglehold of bureaucracy—army and landed gentry—a threat from Pakistan remains imminent. The greater the strife in Baluchistan and NWFP, the greater will be the chances of war against India.

The loss of Bangladesh, far from bringing home the realities, is only making Pakistan lose confidence in its national identity. With the two-nation theory having proved fallacious and all the repositories of Muslim culture like Agra, Aligarh and Hyderabad being in India, the ruling elite in Pakistan is nervous about maintaining national unity. Therefore tension with India is a plank of national policy with Pakistan and it will be foolhardy for us to expect otherwise.

The popular expectation that Pakistan will be unable to maintain large military forces after the loss of Bangladesh has been belied. The answer is simple. The Pakistan Government's military spending would have diminished provided the economic uplifting of the masses had priority in its policies. It being not so, the Government has no hesitation in cutting down other spending rather than reduce the defence budget.

Ever after the 1971 war, Pakistan has raised 37 battalions. Therefore, it now has a total strength equivalent to 19 divisions in spite of the four divisions captured by India. Pakistan is replacing light tanks like M-24s and M-41s with T-59s and M-48s. It is withdrawing tank regiments from divisions to form brigades, thus increasing hitting power in a theatre where massed armies have only a remote chance in a limited war. It is getting M-60 tanks and 105 mm guns from Iran where they have become surplus. It is likely to arm one troop per squadron with HOT anti-tank guided missiles, each tank carrying two triple round packs on the turret. It is acquiring T-60 amphibious (equivalent to PT-76) and T-62 light tanks from China. It may also buy AMX-30 from France. Its total armoured strength would be 400 tanks, according to US sources. The supply of 300 APCs by USA will give Pakistani infantry enough mobility to match armoured columns. As for the Air Force, it has 16 squadrons, of which nine fly American aircraft, including a squadron of F-5 supersonic fighter bombers.

India's 45-squadron Air Force is therefore much better equipped to provide close support to the formations on the ground and fight an air war since for countries dependent upon foreign aircraft, it is the number of aircraft available that counts more than its sophistication. Neither India nor Pakistan is capable of massive strategic bombing to break the will of the man-in-the-street to fight and therefore the aircraft's main role is that of an airborne shell and missile carrier. With regard to the Navy, Pakistan has an inferior naval arm except for the 20 Italian-made midget submarines which, given the fanaticism of a 'jehad', can snipe at our shipping effectively.

All this accretion of military strength should not unduly alarm us. Holding a mixture of rather outdated American equipment and Chinese-made but Russian-designed arms, both interchangeability and tactical flexibility are reduced. In addition, to meet their expansion needs, outmoded equipment has had to be included in their order of battle. Five of the Pakistani regiments, for instance, are still holding the Sherman tanks.

There are a few more factors that need to be analysed before a final picture of Pakistan's military potential is drawn. First, we must rid ourselves of the illusion that the victory of our forces in Bangladesh demonstrates our complete military superiority over Pakistan. The Pak soldier lost because of bad generalship resulting in faulty strategy in East Pakistan, poor national leadership which undermined the confidence of military leaders in the competence of the men in authority in Islamabad. Therefore the fighting men were neither sure of the cause for which they were fighting

nor of the will of the Government to back them till the last. The soldier wherever he was given good leadership, fought well like in Hilli in Bangladesh and all along the Western front. The corollary to this is that just as the 1962 disaster was responsible for regeneration of the armed forces in India, similarly 1971 will shake the Pak military out of its over-confidence and lack of professionalism, due to the temptation of politics.

The second factor is the American attitude to Pakistan. Since the USA has given up the Dullesian policy of establishment of a ring of bases around the Soviet Union and China in favour of interlocking one power centre to balance the other—like the Soviet Union and ECM in Europe, China and Russia in Central Asia and Japan and China in the Far East—Pakistan is no more essential to American foreign policy. Also the Administration cannot dole out huge quantities of arms to Pakistan in the face of congressional opposition. The US theory that a strong and aggressive Pakistan could keep India in a constant state of nervousness, which could be converted into dependence on Western Powers whenever required, has received a setback, after the Indian victory in 1971.

There is one aspect which might lead to rearming of Pakistan by the USA. Having committed itself to the position that Iran should take Britain's place as the dominant power in the Persian Gulf and having sold 2 billion dollars of arms to the Shah, the USA might help Teheran and Islamabad to co-ordinate their military strategies and pool their hardware and personnel through CENTO. The USA has also reaffirmed, by recent arms aid, its intention to retain a measure of influence with the Pakistan military establishment and to limit Peking's encroachments in that country. Therefore, though Pakistan may no longer be as important in its foreign policy calculations as before, the USA will like to keep its options open in a country where it still has considerable leverage. The USA will also like to keep its bridges with Pakistan intact since it is not sure of India's potential as a dominant regional power because of the stalemate on the Western front in 1971, the low spending of GNP (3.8 percent) on defence and its inability to contain twin Sino-Pak threat. However, on the political front, the USA is convinced that regardless of internal strife India will be able to stand united in a crisis.

NUCLEAR THREAT

The intense public debate on this subject has died down as the public concern is always limited to the immediate present. It is necessary, however, to evolve India's policy vis-a-vis Chinese nuclear threat.

Reports from Washington confirm that China has started manufacturing ICBMs with warheads larger than those of the Soviet Union or USA. It is also constructing silos as a protection against first strike. It is expected that China will have a strategic nuclear force of 10 to 30 such missiles in the near future. Were India to face a nuclear threat, it is a complicated political and technical question whether US B-52s in Thailand or the Seventh Fleet would counter the Chinese threat. The flexible response doctrine of the USA would prevent their use for it would constitute a strategic strike, even if early warning was available. No US-USSR guarantee is effective since it would be impossible for them to have identical aims in such an event. It is equally naive to think that any Super Power will attack China to eliminate Chinese nuclear weapon manufacturing and testing facilities before China attacked India. We have also seen that India's efforts at a universal test ban have not prevented a Chinese nuclear arsenal. Universal arms control will not come through either, as the USA will not participate in any action against China to enforce such control since it would like China to counter-balance the USSR.

It is clearly perceptible that it is futile for India to seek an international guarantee of any kind against Chinese nuclear threat. But it is quite on the cards that so long as neither India nor any other Asian power goes nuclear, China's nuclear strategy will be preoccupied with that of the USSR and the US in an effort to achieve second-strike capability, and make the present bi-polar Super Power global nuclear balance into a tri-polar one. Till then the regional security in the Asian region can be treated at the conventional level, including tactical nuclear weapons.

Though we can only hope for the best as far as Chinese ICBMs are concerned owing to our financial inability to go nuclear, we cannot ignore its threat of tactical nuclear weapons. China is capable of deploying MRBMs (range 600 miles) and IRBM (range 1500 miles) in Pakaistan to alter the military balance in the sub-continent in its favour.

STRATEGICAL FRAMEWORK

The foregoing analysis brings out the following salient points concerning the interests of various powers in South Asia:—

- (a) The Soviet Union has a stake in Pakistan, as an outlet to the Indian Ocean. It will help India to weaken Pakistan so that the latter sees the attractiveness of aligning itself with the Soviet Union, thus replacing American and Chinese influence. The Soviet Union will aim to have a substantial presence in India as a counterpoise to China in the south. However, it will not

permit India to become a dominant power in the region which can resist its designs in the region.

- (b) Since China's vital economic interests in the Asian seaboard countries of the Indian Ocean can be compromised by a powerful India, it aims to neutralise India at the earliest. For this purpose, it has deployed one lakh troops and missiles in Tibet and in addition is seeking a detente with Taiwan, sponsored by America, which will release 45 divisions to be used against the Soviet Union and India. China's threat is aimed at the Chumbi valley, guarding approaches to Sikkim and Bhutan, which will help it to drive down to Chittagong to secure a naval base in the Indian Ocean, capable of being supported by land. On the West, it will strangle Ladakh to help Pakistan bite off the valley. It will aim to consolidate its military presence in Pakistan by deploying MRBMs there which will also tilt the military equation in South Asia in Pakistan's favour. China is also making efforts to have a naval presence in the Indian Ocean by befriending countries like Maldives and Ceylon.
- (c) The Straits of Malacca are vital to Japan, whose survival depends upon trade. Its military build-up will soon make it the seventh biggest power in the world. Its economic interests clash with the USA's in this region. It is keen on military containment of China with Russia's help so that it can exact co-operation from China for exploiting its raw material resources and markets as well as those of SE Asian countries. It will soon follow an independent military policy in the Indian and Pacific Ocean. It is improving its relations with Russia to use the latter as a lever against China.
- (d) Iran is using the considerable influence it enjoys with world Powers because of its oil resources, to become the dominating regional military Power in the Indian Ocean. It visualises India as its rival in this region. It has a stake in maintaining the integrity and military strength of Pakistan as a counterpoise to India. Its military hardware would be made available to Pakistan in the event of war with India. Thus the threat on our western borders has not reduced because of Pakistan's losing Bangladesh.
- (e) Indonesia has the strategic location and military potential to checkmate any expansionist moves of China or Japan in the

Indian Ocean. Ceylon's ties with China are a matter of concern to India.

- (f) India will soon lose its leverage in Bangladesh since China will seek its outlet into Indian Ocean through Chittagong. Bangladesh may fall into the Chinese sphere of influence in the near future. India's interests will also clash with both the USA's and USSR's in this country.
- (g) The loss of Bangladesh has made Pakistan lose confidence in the national identity. This, coupled with the stranglehold of vested interests on the Government, keeps alive the possibility of another war with India. The loss of revenues from the erstwhile eastern wing has not diminished its military potential since it has acquired all its military hardware free and has not reduced its defence budget. Its military potential is much greater today than it was in 1971, with no liability on the East. Even though it is not as important to the USA as it was prior to the USA-USSR detente, the USA will help Iran and Pakistan to co-ordinate their military strategies and pool their resources. The USA will continue to lean on Pakistan for the present as it is not convinced of India's military potential as a dominant regional power. Pakistan will only veer away from the path of confrontation when it is convinced of its total military weakness against India. Military deterrance will quieten Pakistan and force the USA to base its policies in South Asia with India as the cornerstone.
- (h) Regional security in the Asian region will depend upon conventional military hardware, including tactical nuclear weapons, as long as no other power like India or Japan go nuclear. The threat of China using its MRBMs from Pakistan or Tibet exists. No international guarantee is worth securing against Chinese ICBMs.

EVOLVING A NATIONAL STRATEGY

After the sub-continental upheaval of 1971, which seemed to bring an end to the Anglo-American policy of containing India's regional potential through unqualified aid to Pakistan, one thought that India was on its way to becoming a regional power capable of preventing outside intervention in the region. This newly acquired confidence is withering away partly because of our inherent inertia in the realm of military thinking and partly due to developments elsewhere in the continent.

The British followed a definite military policy in India in furtherance of the Empire's interests in the East. They maintained Afghanistan as a forward outpost against Russia, Tibet as a buffer against China and Burma as a cushion for India to take on adventurist Japan. They controlled Malaya to sustain Singapore as a sentinel in the Indian Ocean and used Ceylon as a naval base. Our interests were not necessarily the same. However, we threw away the the British policy without replacing it with any coherent strategical doctrine. We have carried out only those changes in our military strategy as have been forced upon by crises such as accepting Anglo-American aid after 1962 or entering into a treaty with the USSR in 1971. Instead of exercising strategical options to forestall military crisis, we have allowed ourselves to be overtaken by them like the engulfing of Tibet by China in 1951 and allowing Pakistan to strike in September 1965 even after the warning of the Rann of Kutch. Even in the sphere of organisation and tactics, like a true democracy we have always been preparing to fight the last war by implementing only the lessons of the last war. At no time so far have we made any attempt to see our future military role and prepare for it. Had we been prepared for it we may have deterred our enemies from forcing the wars upon us. The aim of military strategy is to prevent likely wars by deterrence rather than fighting them.

NATIONAL INTERESTS

India's national security policy has never been drawn up with the aim of gaining a dominant regional status in South Asia and the Indian Ocean. It is so in spite of the fact that our geography and demography dictate such a role. We are best suited to fill the power vacuum created by the withdrawal of the British from east of Suez—in fact the British were able to perform the role mainly because they held India. We should be realistic enough to admit that our economic interests demand that the countries of West and South-East Asia should be encompassed in our sphere of military influence. We must have enough military leverage in West Asia to secure oil and in South-East Asia to supplement our resources of foodgrains like rice and markets for our industry. We cannot compete in the markets of the Western world, but our geographical location gives us an even chance to have a very favourable balance of trade in the SE Asian countries. We must aim to get the most-favoured-nation treatment from countries of this region. This we can get only in return for providing smaller nations such as Burma, Malayasia, Indonesia or Thailand a military umbrella as a safeguard against Chinese hegemony and American economic colonialism. We enjoy considerable advantage in this region by being a country on the

seaboard. Our position on the marginal crescent gives us strategic outlet to safeguard our sea-lanes of communication and spread our military influence in the Indian Ocean.

STRATEGY IN THE EAST

Against China we can only be on the defensive for the present. In the Eastern Sector we must fight a determined battle on the Chumbi valley watershed itself. There is no ground that can be bartered for time. In fact, since the Chinese defences also lack depth, when the hostilities are imminent we must launch a pre-emptive limited offensive from Sikkim. If we are defeated on the watershed we will have to pull out of Sikkim, as in a limited war there is no scope for regaining lost ground. Therefore we will have to have enough offensive potential positioned there since the response time would be negligible. On the other hand we should adopt a defensive posture in Bhutan for two reasons. First because politically we cannot induct sufficient troops in that country and secondly because the communications north of Thimpu are scarce to facilitate logistical build-up. Furthermore the lateral spread of the lower Himalayas in this area is conducive to defence.

In Nepal, we have a complicated situation. Strategically the Indo-Nepal border ie. the Tarai, is indefensible. If the enemy can engulf Nepal it has at its command an excellent communication network of two major roads (one built by China and the other by India) and six subsidiary axes running North to South. It will therefore be able to move down troops equivalent to four or five Indian divisions backed by artillery and light tanks. Additionally it will have the logistical and manpower resources of Nepal at its disposal. It is to be borne in mind that China has greater leverage in Nepal, at present, besides its traditional claim of close ethnic ties with the Gurkhas of Nepal, supposedly of Mongoloid origin. China already has sufficient forces deployed against us on the Hindustan-Tibet border along the Sivalik, Kumaon and Garhwal ranges where the possible point of entry is the Bara Hoti pass. However, it will find rolling down from Nepal more profitable that will help it to bottle up Eastern India by a three-pronged pincer movement ie. through Nepal, Chumbi Valley and via Ledo road. This fits in ideally with its aim of gaining a port in the Indian Ocean. It would derive considerable support from its fifth column in Bangladesh and will also manage to pressurize its Government into making the facilities of Chittagong port available once the offensive is on the latter's doorstep.

In this case we have to adopt Bismark's maxim that national security cannot be hemmed by considerations of international propriety. Therefore, we have to go to the help of Nepal, in case of threat from China from this quarter. The battle for Nepal must be fought along the ranges north of Central Nepal. In the east our forward line of defence should be the Chindwin river, the natural frontier of India. We must also ensure that Burma is capable of defending the line of Salween river in the east from Myitkina to Moulemein, adjacent to the Yunan province of China. It must also be helped to strengthen its defences along the main communication artery i.e. the Irrawady, for that is the key to Burma. Any offensive against Burma must be blunted North of the junction of Irrawady and Sittang rivers around Shewbo and Mandlay. Let us not forget that Burma is the Eastern outpost of India. It is the buffer which helped the British to save India during World War II. At this point one might feel that India should also liberate Tibet to create a buffer against China in the north. The author is of the opinion that China has so consolidated its position in Tibet that it would be out of the realm of the 'feasible' in the next decade. Only feasible military posture is being considered.

STRATEGY IN THE WEST

In Jammu & Kashmir we are likely to be faced with the twin threat from Pak and China. Though it would seem difficult, it is imperative that we recapture the part of Aksaichin plateau, through which the traditional silk route to Pakistan and West Asia passes. There are two reasons for this. Cutting off this China-Pak land route would ensure that the response time for any Chinese military hardware or troops in the event of war would be beyond the time-frame of a limited war. This would, to a large extent, weaken establishment of any Sino-Pak joint military command. Secondly, based on Hitler's dictum that nation's frontiers were not decided in heaven, if China retains Aksaichin for over two decades, its claim to this territory will get legalised by virtue of possession. Therefore, if not the whole, we must at least nibble at this part of the strategic Pamir plateau.

Against Pakistan our strategy should be to prevent war by deterrence as otherwise we have seen that war is imminent even if Pakistan sees only marginal gains. Should Pakistan not be deterred to wage war, our aims have to be two-fold. First, to destroy completely the military machine of the enemy to eliminate immediate threat for the next three to four years. This would not, however, be sufficient as Pakistan has time and again showed its ability to recoup military hardware through

foreign aid. Therefore, our second aim has to be to capture Punjab (Pakistan), where lies the most of the war-making potential of Pakistan, and to hold it long enough to break the will of the people to fight against India.

A stricter analysis of the Southern Command offensive in 71 would show that no target is worthwhile in this sector except Karachi and that too would not serve the primary aim of eliminating the war base of Pakistan ie. Punjab. Pakistan is a land-based power, capable of being reinforced via Iran and, therefore, any bottling up of Karachi would not lead to crumbling of the Pak military machine in a short war, for want of reinforcements, from that direction. Furthermore, sensing future threat, Pakistan is already thinking of a rail link further west of Hyderabad (Sind) lest it should fall into enemy hands. Though in the desert we can have diversionary military activity, we should not forget that the blitzkrieg has to be in Punjab, if we want to avoid repetition of wars with Pakistan every five years. This is advocated in spite of the fact that each mile would be bitterly fought for in Punjab. We must, therefore, provide equipment and mobility to our forces and evolve tactics of manoeuvre to achieve this aim. On the other hand even a diversionary offensive in the desert is costly enough logistically for the results it is capable of achieving. We have seen that mere capture of wasteland serves no political purpose.

THE TWIN-THREAT

We must follow the example of Germany in 1914. Faced with war against two enemies and not having force enough to wage an offensive war against both, Germany decided to crush French resistance in the shortest possible time, so that she might concentrate her armies against Russia. We could also profitably use Delbruck's elaboration on Clausewitz's theory of limited and unlimited wars. Against Pakistan, we should use the strategy of annihilation, a decisive battle being the aim, but against China, the strategy of exhaustion would be the answer. We must, as Marshal Foch did, directly attack the enemy's heart (in Punjab) by superior mobility and blitzkrieg.

AIR POWER

A word about air power. World War II has proved that Giulio Douhet's theory, that strategic bombing breaks the nation's will to fight, is wrong. As Major General J.F.C. Fuller has brought out, Churchill's strategic bombing of Germany only increased the German resolve to fight. It is so because in that case even a man in the street develops a personal enmity against the enemy and the leaders then do not even need

to exhort the nation for greater war effort. Therefore, it would not be necessary for India to raise any strategic bomber force against Pakistan. In a short war even hitting industrial targets does not help since it takes at least 5-6 months before the civil industrial resources can be converted for military use. The Air Force should confine itself to targets of immediate military value like oil refineries, ordnance factories, and airfields including civil aircraft. However, against the Chinese missiles in Tibet we must police the 2500 miles of Himalayan borders by a radar network, and in case they position the MRBM or IRBMs in Pakistan, along the Western borders also.

MILITARY POTENTIAL AND ALLIANCES

Two conclusions seem logical from the entire foregoing analysis. First, in order to pursue the strategy, as outlined above, against the twin Sino-Pak threat, India will have to raise new formations and reorganise the existing ones so that we can deliver the punch into the heart of Pakistan ie. Punjab and exhaust China on our borders. No attempt is being made in this article to spell the exact quantum of forces but it is obvious that our present set-up is inadequate. We lack mobility in our formations as demonstrated by the fact that in 1971, our strike corps was barely able to advance 20 km and was not even able to commit any armour in an outflanking move to make contact with the enemy's forward defences due to lack of manoeuvrability. Manoeuvrability comes from ability to launch force off the main axis. Both India and Pakistan today can only concentrate forces on fixed lines of communications which are known to the other. The density of lateral road network is extremely low. Therefore we need engineers and sophisticated road-building equipment in sufficient quantity to achieve manoeuvrability. Logistics is another handicap. In 1971, even though we had two divisions in the desert, the logistical capability did not allow us to push forward more than one division. It too could reach only less than half-way to its objective (Hyderabad) due to inadequate logistical build-up. Therefore, even the meagre 30 odd divisions we have, are not worth their salt without mobility, manoeuvrability and logistics.

We need to raise new formations which have air mobility including paratroop-helicopter formations. We need to procure sophisticated engineer equipment to cross numerous water obstacles in Punjab. We also need to review whether we should change from the divisional to flexible task forces concept in order not to get bogged down in slugging matches with Pakistan as we did in 1965 and 1971. We also need to design divisions which are capable of being switched over from plains

to mountains to delta to desert. At present even though we might fight on one front, in the short response time available, we would not be able to re-equip, let us say, a mountain division to fight in the plains or desert or vice-versa. Our divisions should be capable of fighting from zero to 18000 ft. We also need to arm ourselves with at least technical nuclear weapons.

An essential aspect which needs to be looked into is the ability to wage guerilla warfare in Pakistan. The conditions in that country are conducive for this kind of warfare. This can compensate for the near parity of forces that is likely to exist on our borders.

The second conclusion is that India will not be able to raise sufficient conventional forces to implement its military strategy and counter the twin-threat in the next decade. Here arises the need to go in for military alignments. The regional forces operating in Asia, as discussed earlier, suggest that Japan can be our natural ally along with Indonesia. Its national interests and ours do not clash. It is interested in the containment of China and developing good relations with the Soviet Union. Therefore, we can depend upon the USSR and Japan to prevent China from opening a second front against us while we are at war with Pakistan. It will soon become the seventh biggest military power in the world having a stronger Navy and Air Force than China. It, too, wants to prevent American intervention in the Indian Ocean and ensure free passage through Straits of Malacca. It will also counter Chinese influence in countries of the Eastern Asian seaboard. With the conflicting Sino-Japanese interests counter-balancing each other in that region, the Western Asian seaboard, consisting of Malaysia and Burma, the region of India's interest, would be comparatively free of its military influence. Economically and technologically too it is in the best position to help capital goods in this country. As for Indonesia, it controls the entrance to the Indian Ocean from the Malacca Straits and therefore as an ally it can be depended upon to bar any undesirable element into the Ocean just in the same way as Turkey uses the Straits of Bosphorous. Fortunately, after the fall of Sukarno Government, Indonesia has been very friendly with India.

CONCLUSION

We have seen that during the last 25 years of independence, though we had thrown overboard the British concept of India's strategic interests, we did not replace it by any doctrine serving our national interests. We must see our role as the dominant military Power in the Indian Ocean region and the sub-continent particularly. We must follow a forward strategy

and recognise the outposts for India's national security. We must raise sufficient military forces to implement our new strategy which our geography and demography demand. The argument that our resources do not permit this is invalid because our defence spending is the minimum in this region—only 3.8 percent of the GNP. To compensate for inadequate military strength, we must go in for military alliances unhesitatingly. In days when conflicts are governed by interaction of powers, we cannot act alone. Even Super Powers have to bank upon a system of alliances.

Finally, since a nation's security interests are more or less permanent, being the derivatives of geography and economic resources, the basic strategy of the nation changes only marginally. Our strategy in the next decade against the twin Pak-China threat has to be based on the Delbruck-Clausewitz theory ie. strategy of annihilation against Pakistan and one of exhaustion against China. Simultaneously in spite of our friendship with the Soviet Union, we must act in passive collusion with countries opposing Russian domination of the Wakhan corridor and the Pamirs. Finally in the words of GT Renner, 'no nation can hope to live, much less to prosper, unless it can think in geographical and economic terms when planning its military strategy'.

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REGIONAL ARMIES

MAJOR S.S. CHANDEL, SC

THE concept of regional armies envisages self-contained military autonomous organisations for different parts of the country. The size, organisation and structure of these armies is based on the geographical and operational requirements of that particular region where they are located. Their moves, reliefs, promotions, transfers, supply, maintenance is all done within the region. The men except for the officer corps and a few technical personnel belong to that region.

In the above concept it is proposed to interpolate a new element. It is suggested that the regional armies be composed of a relatively small hard core regular force which should be fully mechanised and modern, meant for instantaneous reaction and to absorb the first shock. It should be backed up by a well equipped people's militia which should form the mass of the national army. It is felt that such a force can be mobilised and brought to adequate fighting pitch within a period of 6 to 8 weeks if consistent practice has been carried out periodically.

It is further suggested that it should make no difference to the efficiency of the army as the mass of the existing men in today's army (which it is proposed to mobilise only periodically), does not get more than 8 weeks of training even when they are on the pay roll throughout the year.

It should be possible to have at least three times larger army within the same allocation of funds for defence and consequently much greater security than is being given by our present organisation.

The large trained reserves of manpower have further, though as yet undetermined value, in the event of a nuclear war when all the eggs would not be in one basket and disruption of rear areas by nuclear strikes will not have completely devastating effect. It should be possible to absorb the effects.

If any precedences are required there are the examples of the USSR, China, Israel and Switzerland. Even the USA resorts to mobilisation of drafts as a regular practice and no one can say that the performance of the American Army has been less than adequate.

The concept of regional armies suggests itself in our context due to the size of the country, the need to concentrate deterrent amount of force at the threatened point, relative inadequacy of communications to achieve this, the present-day sociological need to have the man looking after his single unit family when the joint family system is disintegrating, the need for economizing in all kinds of resources of the country. In this article an attempt will be made to consider various aspects of this concept.

THE PROS AND CONS

It may be suggested that centrifugal tendencies in this country are not non-existent and advantage could be taken of by parochial interests to infiltrate into the armed forces of the region to fan discontent and unrest. Attempts may even be made by some ambitious men to rebel against the Central Government. It may weaken the national character of our armed forces.

Analysed deeply enough it will appear that although seemingly substantial, these considerations are not so formidable. Firstly, no part of the country is interested in subverting the country to, say, proclaim its independence. Secondly, if such a tendency is suspected to be even remotely possible in some part, the composition of the force located there may be changed suitably by moving the local troops slightly away from their normal habitat. Thirdly, the Air force and Navy will have to remain in their present form by nature of their service besides the armoured divisions which should also remain centrally located and controlled for flexible response anywhere. No armed rebellion anywhere can really succeed without the offensive might of armour and air. Fourthly, with the set up being proposed subsequently, privations which the men suffer presently will have been removed, thus leaving them little ground for any disaffection. Fifthly, the officer class must continue to be recruited and posted on the existing pattern. The composition of most of our units as it stands today is on class/caste basis and yet the army has assumed a national character. This is due to the secular and apolitical attitude of the officer class. There is no reason to believe that regionalisation of the army would change all this.

THE NEED FOR REGIONAL ARMIES

Even in the happy event of India being able to work out a 'modus vivendi' with Pakistan and China, we can feel fully secure and not living on a short lease of life, only if our armed might makes it a deterrent for anyone to consider an aggressive design against us. As things stand today

the present strength and composition of our army cannot be considered deterrent by any stretch of imagination. In fact this is the bare minimum that an impoverished country has to afford in the interest of its security. Even this force costs the country 3.5 per cent of GNP and roughly about 50 per cent of its total budget.

This standing army is kept on two basic premises namely :—

- (a) Any war with our adversaries will have to be short and swift and hence will have to be fought with the forces in being.
- (b) It is not practicable to mobilise any substantial forces in a reasonably short time and expect them to be battle worthy.

For any trained military man it is not too difficult to imagine that with the quality and quantity of forces available with us we are hardly able to checkmate our potential adversaries and that too tacitly assuming that China has no aggressive designs against us. This, therefore, implies that our military power is giving us the barest of insurance and most certainly no freedom of action which should be the aim of policy and in attaining which military is a major instrument along with others like diplomacy and economics.

It is felt that the concept of Regional Armies can give India complete security insurance and that it is well within its economic capability. An attempt will be made in subsequent paragraphs to examine this idea.

THE CONCEPT

For the purpose of military mobilisation, India may be divided in to military regions according to present commands except the central command which should be converted into a strike command. These commands have areas and sub-areas under them which are so far line of communication formations. It is suggested that the areas should be reorganised to include operation and training staff to take on the duties of a corps Head Quarters when mobilised. Similarly sub-areas should be given additional 'G' staff to form nucleus division HQ Staff when mobilised. Further down, District Head Quarters should be created to develop into brigade Head Quarters. Here three battalions Head Quarters should also be formed with the nucleus staff of officers, JCOs and NCOs who can take on the training of the people's militia when mobilised. The total staff thus organised should not exceed 1200 officers and 2600 men and should cost the exchequer approximately Rs. 3 crores.

The regular forces should continue to exist in their present quantity but should be thinned out from the borders where their fighting edge gets wasted in policing duties. The major portion should be cantoned within striking distance of the area of responsibility while a small portion be deployed in the more sensitive areas to be able to counter sporadic threats and to deter any piecemeal nibbling of our borders. This deployment may be reconsidered from time to time as our relations with our neighbours improve.

Costs

The first essential while computing the costs for the suggested organisation is not to pay heed to experts and empire builders and not to go by war equipment tables. In his passion for going into details and thoroughness the expert is likely to miss the wood for the trees while the empire builder is likely to destroy the ecological balance in his selfish pursuit of the growth of his organisation.

Therefore when calculating the cost of the equipment for the division only bare essentials like arms and essential transport should be taken into account. Secondly, whatever the civilian administration can provide, should be incorporated into mobilisation schemes and essential communication bought separately for the sake of self-sufficiency. Thirdly, all equipment may not be bought at once but may be phased to suit the budgeting.

Taking the above premises into consideration, the following costs may be incurred :—

(a) Cost of nucleus staff	3.15 crores
(b) Cost of essential equipment for 20 divisions	100.00 crores
(c) Cost of annual maintenance (to include pay and allowances for the period of mobilisation)	40.00 crores
(d) Cost of annual training	1.00 crores
Grand Total	144.15 crores

If the country wishes to continue to spend 3.5 per cent of its GNP on defence, with the average rate of growth visualised it will be within our capability to raise such force within a short time.

The details of the cost computation are at Appx 'A'.

MOBILISATION

On declaration of emergency, the civil officials should be incorporated into the army by an Act of Parliament. They should be given suitable ranks and uniforms. That would eliminate any possibilities of personality clashes and would smoothen the functioning of the mobilisation machine. They should be given jobs according to their civil functions. Thus the Collector with the rank of a full colonel or a brigadier may be made responsible for mobilising his district while a district supply officer with the rank of a captain or major may be asked to carry out the provisioning of the men so recruited. Similar action should be taken in respect of doctors and engineers. The important point is to bring everyone under some such act which may make it difficult for any one to skip the duty in uniform. Some modified form of army act may be the answer.

Frequency of Mobilisation and Training

Mobilisation should be practised once in a year for the personnel who are recruited to be in combat arms. It should be of a duration of approximately six weeks to enable them to undergo essential Infantry training. Two weeks will be taken to mobilise and organise these men and four weeks will be spent in imparting necessary training. It may be of interest to know that even a regular soldier of our standing army gets barely 4 to 6 weeks for his individual training while the rest of his time he spends in doing rather non-military duties. So this training may not compare very unfavourably with the regular army.

Mobilisation should be done according to suitability of the season so that there is minimum disruption of economic life. During the period of mobilisation the men and officers should be generously compensated so that this activity instead of causing economic hardship on them may give a fillip to their personal economy.

If the forces are adequately modernised with adequate air borne, air lift and heli lift capability and strike capability of armour (all being indigenously produced now), it should be possible to deploy our forces thinly on the borders, with good signal communication, and good road communications now available plus the modernisation being suggested, it should be possible to react swiftly and decisively at time to deter any aggression. It is suggested that our entire borders can be adequately manned by a force of nine divisions and BSF as under :—

(a) Deployed on Borders

	Infantry	Armour	Regional force (to be mobilised more within 6-8 weeks)	
			Infantry	Armour
(i) LADAKH	One Brigade	One Regt	Two Brigades	Nil
(ii) KASHMIR VALLEY	-do-	-do-	-do-	Nil
(iii) JAMMU, POONCH RAJAURI	-do-	Three Regts	Two Divisions	One Regt
(iv) PATHANKOT	One Division	-do-	One Division	-do-
(v) PUNJAB	-do-	Four Regts	Three Divisions	Four Regts
(vi) RAJASTHAN	-do-	-do-	-do-	-do-
(vii) NEFA	-do-	One Regt	Two Divisions ex UP, BIHAR & BENGAL	Nil
(viii) NAGALAND, MIZO	-do-	One Armoured Car Regt	One Division ex Assam. UP, BIHAR & two Divisions will be raised ex Central & South India.	Nil
(ix) SIKKIM	-do-	One Regt	Two Divisions ex UP, BIHAR & BENGAL	Nil
Total	9 Divisions	19 Regts	20 Divisions	10 Regts

(b) Strike Command

(i) Armoured Divisions	= 2
(ii) Air Borne Divisions	= 2
(iii) Mechanised Divisions	= 2

Thus it would mean that, if reorganised on the lines suggested, India could manage to defend its frontiers by deploying only nine regular divisions.

The remaining divisions could be kept suitably cantoned in proximity of the threatened sectors to move as and when required and to keep themselves in the best battle trim. These divisions will be able to absorb the second shock and stabilise the situation while also allowing time for the people's armies to be mobilised.

In due course, say in five years, when the mobilised regional forces have attained requisite battle efficiency, demobilisation of the reserve divisions may be considered in relation to our internal and external situation at that stage.

STRATEGIC AND TACTICAL DIVIDENDS

All our strategic military movements are based on railways. This necessarily takes time due to the vast distances involved. For example it takes approximately 30 days and 50 trains to complete a move from North Eastern India to the Western region. Then again it will take another 10 days for a division to become combat effective.

The regional armies will cut all this movement time and expenditure will be available at a critical spot earlier than the force moving from another corner of the country.

Also, since most of these men will be from the same region where they are going to operate and should have carried out exercises in their areas of operational responsibility, they will be more confident and reliable there than a freshly inducted force from a very different region of the country. There will be no necessity of familiarisation or acclimatization. Also perhaps there will be a greater motivation for the local man to fight more resolutely since he will be fighting for his hearth and home.

From another angle, the railways would be free to carry out the required movement of material and equipment to various theatres of war. There will be a minimum disruption of life and minimum strain on communications.

Morale Factor

At present the biggest hardship that an army man has in his profession is separation from his family, leading to such things as disruption of family life, children's education, double family establishments and financial

losses. When the armies become regionalised the movements will become shorter and less frequent thereby eliminating all these difficulties. Thus the army may become a more attractive career to pursue.

Economy

At present, the defence pays a huge sum to railways for its tremendous movements. This will be reduced considerably, economising both in defence expenditure and releasing this rail capacity for urgent economic tasks.

Extra Defence Potential

Counting on the basis of existing static Headquarters today, approximately 7 Corps and 20 Divisions could be easily raised in a space of maximum two to three months and the process could be continued. In fact with such organisation and with our abundant manpower resources the very thought of invading and conquering India will become nonsensical and all this vast security could be bought at a very low cost.

CONCLUSION

Thus the concept of Regional Armies would resolve itself into the following layers/components :—

- (a) A bare essential hard core force which must be fully mechanised and modern to be able to react instantaneously to the anticipated threat in that region. This will be permanently located in a particular region and will take the first shock.
- (b) A strike command to move and strike a decisive blow. This must be centrally located with at least the combat arms being air mobile and the rail plans made to concentrate the whole force in a given part of the country within a minimum time, say one week.
- (c) Regional armies to be mobilised in one week to back up and bolster the regular army in that region.
- (d) The process to continue so that within a short time the whole region and the country becomes a piece of granite by striking which the aggressor can only bleed to death.

Thus in due course we shall have no fear of being overrun by any power on earth and the country shall be able to pursue its policy without any fear of subjugation at any time.

**COST OF REGIONAL ARMIES OF APPROXIMATELY
20 DIVISIONS ORGANISED UPTO SEVEN CORPS
HEADQUARTERS**

**1. Cost of an addition nucleus
G Staff at Area HQ (Corps HQ)**

(a) GSO 1 (Ops & Trg)	1	24000/-
(b) GSO 2 (Ops & Trg)	1	18000/-
(c) DAQMG	1	18000/-
(d) Clks	3	12000/-
(e) Establishment		20000/-

92000/-

(Rounded to
1,00000)

Cost of total of seven Corps
HQs nucleus staff.

700000/-

2. Cost of nucleus G Staff (Div HQ)

(a) GSO 2 (Ops & Trg)	1	18000/-
(b) GSO 3	1	12000/-
(c) SC A and Q	1	12000/-
(d) Clks	2	8000/-
(e) Establishment		10000/-

60000/-

Hence cost of 20 Divisional
Headquarters nucleus staff.

1200000/-

**3. Cost of additional Nucleus
G Staff (Brigade HQ)**

(a) BM	1	18000/-
(b) SC (Q)	1	12000/-
(c) Clk	1	4000/-
(d) Establishment		6000/-

40000/-

Cost of 80 Brigade HQ

(incl = $40000 \times 80 =$
320000

4. Cost of additional Nucleus

Battalion HQ and Training Staff

(a) OC	1	24000/-	
(b) Adjt	1	12000/-	
(c) QM	1	12000/-	
(d) Coy Comdr	1	15000/-	(He shall be incharge of training of nucleus staff)
(e) Platoon Comdrs	3	7000/-	
(f) NCOs	9	30000/-	
(g) Establishment		10000/-	
		<hr/> 110000/- <hr/>	

Hence cost of 180 Infantry battalions,
60 artillery battalions

$$= \frac{240 \times 110000}{26400000}$$

5. Cost of essential equipment for one Infantry Division = 5 Crores (hence 20×5=100 Crores)

The equipment being catered for an infantry division would include weapons, radio sets, telephones and bare essential number of vehicles i.e. 5 vehicles for major unit, say approx 100 vehicles as against—— authorised at present. Civil transport will also be mobilised when the normal mobilisation takes place.

6. Cost of annual maintenance of one infantry division (inclusive of all men for 8 weeks) = 2 Crores (hence 20×2=40 Crores)

At present the annual maintenance cost of an infantry division comes to about 14 crores. Since these 20 divisions will be paid for only two

months and the maintenance expenditure of all items being reduced by about 80%. Rs. 2 Crores may be a reasonable estimate.

7. Cost of annual training = 1 Crore

8. Hence the total costs on Nucleus Headquarters.

(a) Corps HQs	(7)	700000/-
(b) Div HQs	(20)	1200000/-
(c) Bde HQs	(80)	3200000/-
(d) Bn HQs and nucleus training Staff	(240)	26400000/-

31500000/-

9. Thus the total expenditure :—

	<i>Crores</i>	<i>Lakhs</i>
(a) Total cost of nucleus staff	3	15
(b) Cost of Essential equipment	100	—
(c) Cost of annual maintenance	40	—
(d) Cost of annual training	1	—
Grand Total	144	15

Notes

1. Obviously these calculations are based on approximations as regards the costs of various equipment, pay and allowances.

2. Only essential fighting element of a division i.e. infantry and artillery have been taken into account. For the rest it is felt that the civil organisation should mainly provide for. It is possible that some inevitable administrative elements may have to be created. But such temptation must be most seriously guarded against lest it may cancerously destroy the basic concept.

3. Engineers, Signals, EME, Medical, ASC, Postal and Provost must come from the civil services. However, some coordinating authority may be appointed.

THE URBAN BATTLE FIELD

LIEUT COLONEL SUSHIL NATH

INTRODUCTION

A LIST had been drawn up by the assassins and, when they set out, the victims were as good as dead. At 0700 hours, the killers closed in from a moving car and shot down two men. At 0940 hrs. they took up window positions inside a church watching a house across the street. They waited for 50 minutes before the man they wanted came out. The killers took aim and fired.

That morning, 14th April 1972, shocked the little republic of Uruguay as has nothing else in recent times. The killers were members of the leftist Tupamaro guerrilla movement, and the victims were associated with the government, armed forces and police. The Tupamaros, who had been skirmishing with the authorities for nearly three years, had launched a final effort to replace Uruguay's democratic government with a Castro-style dictatorship.

Urban areas have been increasingly used as battlefields by the guerrillas in numerous countries. In cities throughout the non-Communist world, the street is alive with alarming activities; politically motivated arson, bombing, kidnapping and murder. Closely related to these is the phenomenon of skijacking, for just as the highly complex twentieth century city is the most vulnerable point in man's terrestrial sphere, so is the thin-skinned, 600 mph jet the most vulnerable in the atmosphere. The terrorist activity is worldwide, wide-ranging and most of it is now being carried out by a new identity in the history of political warfare—the urban guerrilla.

Increased industrialisation has attracted many victims of modernisation drifting into cities from rural areas. Awakened rural masses migrate to cities in the hope of finding employment so that they too can meet their aspirations. But a vast majority of these drifters turn into disillusioned and unemployed city dwellers only to form a hard core of bitter anti-government faction.

Failure of a government to pacify people and to check unrest at early stages leads to steadily deteriorating conditions. The chaos in administration is exploited by opposition leaders who have a ready arsenal

of disillusioned unemployed and bitter anti-government masses. These people can be turned against the authorities with the aim of overthrowing the leaders in power. Political chess is then played in the urban battlefields for a quick decision.

In Belfast and Londonderry, barbed wire, sandbags, bunkers and helmeted troops have been fixtures since Northern Ireland's ancient religious antagonisms flared into violence in 1969. Tupamaros turned sewer system of Montevideo in Uruguay into a network of their own highways. They rented houses in quiet residential neighbourhoods under which they excavated hideouts and opened shops where they made furniture with sliding panels to conceal secret passages. Car repair workshops disguised stolen vehicles. A tailor's shop made bogus police and army uniforms, and a photography shop produced false identifications for Tupamaros. They took all their money, supplies, arms and amn. only at gun point. In Calcutta and its industrial satellites police at one time had been loath to venture off major roads since Maoist Naxalites stabbed some of their colleagues to death in dark alleys as part of a deliberate campaign of terror. During Mar. to Nov. 70, a total of 526 attacks were reported.

It is admitted that there are few examples in history where an urban uprising has succeeded by itself. But this does not preclude the possibility of successful guerrilla operations in built-up areas.

AIM

Mao Tse-tung, Vo Ngyen Giap and Che Guevara, of necessity, had restricted their warfare or revolution to the countryside because in their own countries, the masses were to be found in the rural areas. But will the changing pattern of urban areas offer suitable ground for conduct of guerrilla operations in the thickly built-up areas ?

The aim of this paper is to examine the pattern of insurgency in urban areas, the contributory factors and suggested ways and means to counter guerrilla warfare in cities and towns.

CONCEPT

The term guerrilla is normally associated with the wilderness like the deserts of Arabia, the plains of China or the Jungles of SE Asia, where bands can hide in caves, dense forests or simply in vast desert spaces. Guerrillas themselves suggest fast moving bands moving on remote paths in inaccessible dense undergrowth or unmapped byways in rural communities.

In essence, the concept of urban insurgency is quite different. Instead of beginning in the countryside, as the old professionals Mao Tse-tung and Fidel Castro had done, guerrilla war is launched in built-up areas. The aim of insurgents in either type of war must remain the same, that is to overthrow the government in power and to establish in its place the rule of the "proletariate". The hearts of people must be won and turned against the existing government. The methods used to precipitate the surrender of government will still be in sabotage and terrorist activities executed with the greatest cold-bloodedness, calmness and decision; but the tactics are vastly different.

PHASES OF URBAN INSURGENCY

The first symptoms of fermentation of a urban insurgent movement may be a few threatening letters to persons in power, recovery of underground literature, leaflets and handouts and not too frequent sabotage cases. Messing-up of electrical or telephone systems, hijacking of an odd aeroplane and sending of an odd letter bomb would ring the bell in the minds of persons in power that efforts are afoot to tarnish their image. Increasing din and noise and criticism of the government in parliament may be not entirely coincidental. Political instability and chaos will act as a catalytic agent in the germination of insurgency.

A corrupt administration, chaotic political conditions and disrupted economy will be fertile soil to reap a harvest of revolution. This time is also opportune for the educated but unemployed and literate city dwellers whose aspirations are not realised, to polarise into an anti-government force. The leaders can easily select suitable persons to form an effective organisation in the cities to put into practice their future warfare programme. A party is established whose headquarters control various subordinate cells to reach the masses. This may be termed as the first or 'organisational stage'.

With the organisational work complete, adequate personnel enrolled, funds collected, insurgency in built-up areas is initiated both overground and underground. The overground activities in a democratic country may be frequent floor crossings by members of parliament and toppling of government every second day. Propaganda against the government may be stepped up by posters, leaflets and anti-government papers and rumours. Dissident and opposition leaders may become progressively more vocal in criticizing government lapses. This may be termed as second stage or 'Initiation of Insurgency'. The economy of a country would be thrown out of gear at this point by steadily increasing expenditure to appease

various factions of disgruntled political parties merely to permit the party in power to breathe a little longer. In non-democratic countries the expenditure will soar high on account of rapidly increasing security forces, intelligence agencies and police.

What may follow now could be the third or active phase of 'street warfare'. Sabotage, looting of banks, train accidents, hijacking of planes, sniping and kidnapping of important and political personalities may not be too infrequent. This stage may be prolonged, depending upon the ability of the government to resist and for the guerrilla to muster internal and external support.

The insurgency should not enter the fourth phase called 'annihilation stage' till plenty of ground is covered in the third phase and the insurgents have gathered ample intelligence suggesting that the time is ripe for them to wipe out the government or to force the government's police and security forces to come overboard or surrender. This stage in other words spells an all-out war. It is followed by decisive victory or defeat. This is a short phase and may not last longer than a few months, at least in its full momentum.

The fifth and the last stage is suggested as the 'consolidation stage', in which the guerrillas are expected to round up government's loyal forces and collaborators, akin to the action in Bangladesh after the surrender of the Pakistani Army.

PHASE I—ORGANISATION

The need to have a sound controlling organisation with its tentacles reaching into the masses cannot be overemphasised. Thus the insurgent leaders must find dedicated men as their comrades, select suitable places as their rendezvous, decide on an attractive cause for the people to fight against the government and solicit support of an external power. It can be summed up in one word 'party'. This organization should preferably have the support of a popular party in its programme of bringing dynamic revolution to the streets.

In Athens, the resistance against the occupation, only started when the Germans began to imprison members of the Communist Party. It was the influence of the Communist Party which enabled the formation of National Liberation Army in 1942 which was to emerge as powerful urban guerrillas in Athens.

Nearer home, the Maoist groups in India have experimented with urban guerrilla techniques. The Naxalites of West Bengal adopted their name from a peasant uprising in Naxalbari in May 67. Their main political organization being the Communist Party of India (Marxist-Leninist). Starting as a rural insurgency movement among the backward tribesman of Srikakulam, the party shifted its focus to the urban scene when government legislation removed the grievances of the tribal peasants.

Selection and enrolment of personnel for the daredevil urban terrorist activities may pose a negative type of problem. The terrorist activities may attract many an excitable youth. The problem is only of inculcating restraint and discipline. Rigorous training is very essential for the urban guerrillas. The quality required to be developed in the urban guerrillas are aptly described by Carlos Marrighella in "Minimanual of the Urban Guerrilla". According to the Minimanual, he should "be a good walker, be able to stand up against fatigue, hunger and heat, never act impetuously, have unlimited patience, remain calm and cool and, above all, not get discouraged. Marrighella recommends that this durable soul get in shape by "hiking, camping, mountain climbing, rowing, fishing and hunting". Additionally, he notes "it is very important to learn how to drive, pilot a plane, handle a motorboat and have some knowledge of electronic techniques".

Special emphasis has been laid on the qualities required in urban guerrillas because even one man, picked wrongly, can betray the entire organisation. To prove the point, the circumstances leading to Marri-gHELLA's death are narrated. Two Dominican priests who had harboured Marighella on numerous occasions were arrested by Brazilian police and forced to arrange a meeting with him. When Marrighella's trusted body-guard appeared on the rendezvous site, the police had an elaborate ambush, only to riddle Marrighella with five slugs when Marighella came to meet the priests. Capture of Charu Mazumdar, the Naxalite leader, in Calcutta, was similarly assisted by informers.

Unlike rural guerrillas, the urban guerrillas need a vast variety of intelligence. Most of it is available readily in built-up areas through the mass communication media. Infiltration into police, armed forces, security services, intelligence services and the political hierarchy would prove very beneficial to the urban guerrillas in all successive phases of insurgency in built-up areas.

PHASE II—INITIATION OF INSURGENCY

The happenings in Ireland in 1970 illustrate activities in phase II of the warfare. The activist wing of the IRA kept the province in a state of

constant political tension, two prime ministers being hounded out of office.

As stated earlier, the means employed to initiate insurgency in urban areas may not be so violent. Use of posters, leaflets, underground papers and criticism of government by the opposition may become more intense. Dissident leaders may be won over by the guerrillas, thereby strengthening their organisation and neo-capitalists may be persuaded or threatened to aid the insurgents for procuring lethal weapons.

Since insurgency depends on the support of the masses, it is very important that the initiation of insurgency in urban areas is carried out in a manner that would appeal to urban people. A cause such as "jobs for jobless", "rightful place of students in the management of education" or "extra bonus for industrial worker" are likely to be the catch phrases of urban guerrillas rather than "land to the tillers". A communal or religious bias to the cause as in Ireland may help quick polarisation of anti-government forces under one banner. On the other hand, a cause which appeals only to a minority or which does not fit in the changed circumstances will lead to a campaign which is sure to peter out, such as the Naxalite movement.

As it is of paramount importance to select suitable material to lead the vanguard of guerrilla movement, so it is to win the sympathies of the masses. The people alone will be in a position to help the guerrillas to carry out assigned tasks, make good their escape and then provide intelligence for planning of subsequent missions. A guerrilla must provide a Robin Hood image to the rural folk and that of a saviour of the people to the emancipated urbans.

PHASE III—STREET WARFARE

As in other phases, there is no clear cut demarcation between phases II and III. In fact, so subtle is the transformation of phase II into phase III that the government may first become alive to the real magnitude of the danger only at this stage.

The Tupamaros who had been skirmishing with the government since 1969, by 1972 had become formidable opponents, and had nearly brought the Uruguay Government to its knees. They assassinated policemen, kidnapped nearly 20 foreign diplomats and prominent Uruguayans, and for a long time outwitted all government efforts to rescue the victims. They set off bombs, robbed banks, burned down business firms and boldly held up radio stations to broadcast propaganda messages. Even this failed to

jolt the government of the smallest democracy of South America into taking strong action. It was until Tupamaros started an open and pitched battle with Uruguayan Army in April 1972 that the Congress was forced to declare a state of internal war in Uruguay and stamp out the Tupamaros.

The important actions of guerrillas in phase III would be sabotage, street tactics, looting, arson, ambushes, kidnapping, killing and terrorism. Sabotage such as pouring a little sand or sugar in a vehicle, a trickle of a combustible, a screw removed, a short circuit, bomb scare in busy places yields rich return for insignificant effort. Under street tactics, Marrighella suggests everything from marching down streets against traffic; to throwing bottles, bricks, paper weights and other projectiles from the top of apartments and office buildings. Snipers would prove invaluable from buildings.

Bank robberies and bombing remained frequent occurrences in Ottawa. These were carefully planned actions by the French-Canadian separatist group known as the Front de Liberation de-Quebec (FLQ). The Tupamaros also took all the supplies and money needed by them only at gunpoint. Convoys of military hardwares may be more difficult to guard in the narrow roads of Amritsar than in the open fields of Assam. No government force can afford to let numerous innocent civilians be killed in the cross fire between a handful of guerrillas and a contingent of government force.

Kidnapping is nothing new in unconventional warfare, but it can be easily carried out in cities than in rural areas. Numerous VIPs have been kidnapped in countries all over the world with a single aim of increasing bargaining power by the captor. It is also used for propaganda purpose. The most effective method to terrorize a chosen area is killing. Assassination of a government spy, of an agent of the dictatorship, of a police torturer, of a fascist personality, or a stool pigeon, police agent or provocateur may be some of the tasks assigned to guerrillas in this stage of warfare.

Terrorism is a double-edged weapon and thus needs to be handled very carefully. When the FLQ terrorists strangled Quebec Labour Minister, Pierre Laporte in 1970, because Trudeau's government refused to release 23 political prisoners and pay 500,000 in gold bullion as his ransom, the House of Commons approved the War Measures Act by an overwhelming 196 to 16 margin. If, however, the guerrillas could use limited terrorism directly on the government forces and induce the latter to resort

to indiscriminate terrorism on the masses, it could easily and quickly win the much valued support of the people.

PHASE IV—ANNIHILATION

An all-out war between guerrillas and the security police forces is a natural development after terrorism has been reigning on the streets. Detailed planning based on accurate intelligence can hardly be dispensed with. As the name suggests, annihilation stage means systematic and total elimination of all those who wielded power until the insurgency entered phase IV. Unforeseen and unprecedented events may take place at this place.

Founder of the Tupamaro movement, Sendic, reckoned in Apr 1972 that the time had come for an all-out warfare on the Uruguayan Army which numbered 14,000 men and had not seen combat for 68 years. But Sendic could not have made a more poorly judged move. The open battle jolted Congress into declaring a state of internal war, the first in the history of Uruguay. The army, which had taken charge of the operation, was given the power to hold suspects indefinitely. Search warrants were suspended. Working with police, the army rounded up known Tupamaros. The public, which had distrusted the police because of Tupamaro intimidation and infiltration, flooded military headquarters with information. Congress, in turn, enacted new laws under which military courts could mete out sentences of upto 30 years for terrorist offences.

The Tupamaros had sought to provoke a military take-over so as to polarize the country and give them an opportunity to ally themselves with moderate, democratic forces. Instead, they only provoked the army into destroying them. They had failed to win over people at various strata of society; had poor intelligence and took to open war against overwhelming military force.

It was again poor intelligence on the part of General Borkomozowski when he launched a suicidal all-out war against the Germans in Warsaw in 1944. He issued orders to Poles to come underground and fight the Germans in streets of Warsaw when he expected Russian support. Withholding of support by Stalin led to the Urban Guerrilla movement petering out after 35 days.

PHASE V—CONSOLIDATION

The victorious guerrillas will find it very easy to consolidate their position. The public will help in every possible way to get the old guards

removed : collaborators tried and barbaric supporters of the erstwhile regime eliminated. Guerrilla leaders of proven ability may easily be able to establish the new order of revolutionary rule.

So far there are hardly any examples available to throw light on what actually happens when urban guerrillas win their war. But reforms leading to better living conditions in cities, jobs for unemployed, free education, old-age pension, sufficiently high minimum wages, adequate bonus, free medical treatment are some of the measures which may be launched to quickly promote stability in a riot-torn country.

FACTORS FAVOURABLE FOR URBAN INSURGENCY

SUPPORT OF PEOPLE

For its obvious importance, the support of people has been listed first as a factor essential to promote urban guerrillas like rural guerrillas. To quote Mao, "because guerrilla warfare basically derives from masses and is supported by them, it can neither exist nor flourish when separated from them", hence the paramount importance has been attached to the support of people.

What concerns us here is, how can urban masses lend support to guerrillas ? People working in industries, mills, shops and in semi and completely government organisations do not have enough money saved up to subsist without working for an appreciable period. The fear of being fired from work, desire to cling to security offered by job may stand in their way to lend active support to a guerrilla movement. The urban guerrillas must win over certain sections of the urban society before thinking of launching insurgency. Students educated but unemployed ; people dissident but ambitious, trade union leaders and victimised labourers or workers can form a hard core for further development of guerrilla activities.

Similarly, support should be mustered from echelons of government and semi-government bodies. The propaganda value of criticism of government on radio, TV and in press is extremely high when every household buys a newspaper and owns a radio. The awakened masses of built-up areas are likely to subscribe easily to a guerrilla movement if it has an appeal which lets the people see a ray of hope to realise their aspirations.

Population in urban areas offers two distinct advantages to guerrillas. First, a guerrilla can move in a big town without causing any suspicion, whereas a stranger is easily spotted in a village due to ethnic difference

and language barrier, a stranger is accepted to be one of the milling crowd in a cosmopolitan town. Secondly, control over population is an uphill task if not impossible in big cities. Screening of a few thousand workers who have to enter a factory in ten minutes will shoot up the expenses to maintain security staff. It is possible in Nagaland to screen villagers and re-establish a few villages of loyal villagers, but it is not so easy to shift all the hosiery, industry, cycle and sewing machine factories of Ludhiana to a satellite town where only screened workers live. Aptitude in specific skill may be confined to a limited section of the population due to the role of genes and heredity. This prevents shifting of an industry, say carpet weaving, from a big town like Amritsar to a different place. Special temperate climate and availability of semiskilled workers has helped many cotton mills to prosper in Ahmedabad and Surat. But is it possible to screen all the mill workers when insurgency is raising its head? Or is it possible to shift the mills together with loyal workers? This is why in urban areas, population is ideally dispersed to shield, protect, aid and abet guerrillas.

The affluent sections of society living in cities are getting accustomed to more luxurious, materialistic and fast life. They consider every action from immediate and long-range profit points of view. The stress on profit has made them lose interest in human beings. Human beings are considered mere pawns on the chess board of life. Dismissing servants and subordinates for trivial faults is not uncommon. This has made infiltration and penetration in the higher echelons comparatively easy, and since menial workers are changing jobs so rapidly in under-developed and developing country, possibility of guerrillas penetrating through this door is fairly high. Bribery is fast becoming an accepted social evil. To decry it is fashion, to practise it is necessity. This too is an effective weapon to be used on an intermediary to help guerrillas gate crash into the domain of elite.

CAUSE

It is essential that a cause is popular and realistic. It should be timely and be able to convince the people that it would enable them to meet their aspirations. The age-old cry of "independence from foreigners" proved to be attractive enough even in 1971 when tried by Mujib in Bangla Desh. In the rapidly growing cities of Punjab "industry for the workers" or "workers are owners" may prove an appealing cause.

An unsuitable cause will lead to petering out of insurgency in its initial stages itself. The Naxalite movement which was started in rural areas had no appeal to the urban people. It is therefore not surprising that its founder was caught in Calcutta. On the other hand, a noble

cause to seek vengeance from foreign domination helped patriots like Raj-guru and Bhagat Singh to gain support of the urban people who helped them in escaping from the police.

TERRAIN

Guerrillas basically suffer numerical inferiority. This is made up by having intimate knowledge of the terrain on which guerrillas operate and by inference, the government forces have less knowledge of the same. When guerrilla warfare is fought on urban battlefields, the urban guerrilla has excellent chances of escape in the numerous roads and alleys overground and in the sewers underground. The buildings themselves are a better terrain for snipers to execute their mission and then make good their escape.

The Polish Home Army discovered in 1944 that a great city like Warsaw provided unobstructive paths through alleys and cellars, attics and rooftops just as inaccessible to the German Army as a hidden jungle trail. The labyrinthine sewer system of Warsaw may not smell as sweet as a fragrant forest path, but for a time at least it provided the Polish patriots with a highly effective system of communication.

The Malayan Communists found that guerrillas operating in jungles were vitally dependent on supplies from elsewhere. The urban guerrillas, on the other hand, operate in the very heart of the supply system. It is once again the blessing of urban terrain that foodgrains, banks, explosives, arms and ammunition are all available well within the area of operations.

Concentration of population in built-up areas is another factor decidedly in favour of the urban guerrilla. It is the peculiarity of built-up areas which does not permit any government force to wage an all-out war against the urban guerrilla. No government can afford to indiscriminately bomb a block of urban area whereas a similar severe measure can be applied to a forest.

BASE AREAS

Mao stressed the need for a guerrilla base area. He suggested a generally strategic location for training, self-preservation and development. Base areas in jungles were considered to be inaccessible from the urban citadels of security forces. Insurgency in Nagaland has thrived on this. In urban areas the base camps are required to accommodate headquarters of guerrillas, hospitals, arsenals, supply dumps. There may be numerous small units dispersed in a built-up area and capture of one would leave several others still functioning. The inaccessibility of base areas in urban

area should not be measured in terms of miles, but in terms of delay it poses to the government forces before they are able to locate the base camps.

In Montevideo, the Tupamaros set up several hospitals for their wounded comrades. In tomb-like caverns, they maintained people's jails, where they held their kidnap victims for months. In Brazil, the followers of Carlos Marrighella stocked their arsenal of molotov cocktails, gasoline, home-made contrivances such as catapults and mortars for firing explosives, grenades made of tubes and cans, smoke bombs, mines, conventional explosives, plastic explosives and gelatine capsules, all in ordinary houses in Sao Paulo. The home-made arms and amm. recovered from Naxalites in West Bengal were found to have been kept in ordinary houses in Calcutta.

Suitable base areas are very necessary which can be easily found in the urban areas. The training imparted to guerrillas in hiking, walking and living off the land can be modified and physical fitness can be maintained in city gymnasias. For escape and evasion, it is not necessary to camouflage oneself with the local flora and fauna, but to mingle with a human crowd and get lost.

TARGETS

Built-up areas have natural concentration of banks, jewellery shops, grain markets, arms dealer, and shops having other goods which guerrillas need to sustain themselves. Railway yards in industrially developed towns, hardware stores, godowns of food supplies and clothes will be attractive targets for guerrilla attacks.

Security of targets poses immense problems to the government. Major vulnerable areas such as airfields, radio stations, railway yards, water reservoirs, power stations, bridges and important buildings may be guarded with available security forces, but small vulnerable points such as a civilian shop keeping combustible stores, a hardware shop, a jeweller, or a cashier of a department cannot be guarded at all the times by security forces; neither can liberal issue of arms licences be visualised when the insurgency appears to be ripening in a country.

It is the location of targets in the heart of population which makes them so vulnerable to guerrilla attacks. In countryside, the targets available are well trained columns or patrols of security forces which may be adequately guarded. The villagers are unlikely to be hiding caches of arms or explosives, the only item they can lose to guerrillas is their foodgrain. Comparison of targets available in the countryside and urban areas leads

to conclusive inference that built-up areas offer more suitable targets to the guerrillas.

TERRORISM

VIPs as targets had been deliberately left out to be covered under terrorism. "The terrorism of today", says American sociologist Richard Sennett, "is the diplomacy of Henry VIII." Terrorism has been used by urban guerrillas in Quebec, Brazil, Uruguay and in various other parts of Canada. Killings are recommended to be executed with the greatest cold bloodedness, calmness and decision. For psychological effect, most killings in Uruguay were carried out on Friday, a day of the week that the public came to dread.

Blind and indiscreet terrorism may produce quite the opposite results. Selective terrorism with the aim of proving to the public, that the guerrillas are superior to the security forces will make its impact. Terrorism can be effectively used in a negative manner by guerrillas. They can provoke the government to resort to terrorism against a section of public, say, by eliminating a VIP in that area and then win over the people by propaganda.

Terrorism which gains rapid publicity on mass communication media proves useful more in the urban areas than in the rural. More suitable personalities are available in the affluent sections of big cities than in the countryside. Cities and towns offer innumerable opportunities for terrorist attacks. Terrorist activities taking place in quick succession do not fail to leave their mark on the urban masses. This weapon can be more effectively used in urban areas than in rural.

COUNTER MEASURES

A study of urban guerrilla warfare will remain incomplete without going into the study of preventive measures and remedies.

In the early stages of insurgency, it may suffice for the government to purge its administration of corrupt officials. This may not always be practicable, but exemplary punishment to a few chosen scapegoats accompanied with propaganda will appease a major portion of the population. Economic stability, sufficiently high standard of living, job-oriented plans and free education are sound investments which can keep insurgency at bay. People may not be won over but at least should be appeased.

Once it is known that insurgent groups are becoming active, complacency should be shed and a unified command of various government agen-

cies available should be set up under the highest political leaders. Intelligence must be expanded and government should start from the beginning. Information on surface and subterranean facilities, population distribution, areas of possible unrest will all form part of intelligence. People should be screened, antecedents verified and lists drawn up to grade people as loyalists, anti-government and doubtful ones. Reverification should be taken up at frequent intervals. Failure at this stage may permit anti-government elements to infiltrate into the inner circles of government.

Contacts with foreign nationals should be viewed with circumspection. Likely hideouts of guerrillas may be kept under observation. Arms may be seized and shops dealing with hardware, explosives and combustible materials should be licensed. Thorough study of terrain with emphasis on approach and escape routes should be made. Internal security plans to guard vulnerable areas and to man essential services should be drawn up and if possible rehearsed. It would do well to incorporate trusted civilians in defence of the vulnerable areas and defence installations.

When guerrillas have taken to the streets, it may become essential to strengthen the hands of the government by passing special acts to take ruthless measures against "unsocial elements". Intelligence organisations try to penetrate guerrilla bands to gain intimate information. Apprehension of suspects and verification of their antecedents may become necessary, including stricter checks on airports, railway stations and bus stops to spot strangers and personnel moving under suspicious circumstances. Needless to say that security arrangement should be stepped up to thwart attempts by urban guerrillas to sabotage government property. Personal bodyguards to VIPs may become the order of the day if terrorism mounts high.

Issue of identity documents and issue of ration on production of such papers will make movement of urban guerrillas difficult. Systematic clearing of a built-up area, block by block, may be tedious but very useful. Surprise checks and raids coupled with strict punishments will halt insurgency to some extent. Extra-vigilant guards and security arrangements on all those points where guerrilla raids are expected will become very desirable when urban guerrillas gain momentum. Which government would like to have banks, treasures and arsenals unguarded when guerrillas try to obtain what they need, only at gunpoint ?

In the final annihilation stage, an all-out war on guerrillas will be desirable. Better communication, greater mobility, and intelligence agencies are advantages to government forces. Problems are that weapons, artillery, air power in which government forces are superior cannot be

effectively used. Security forces have to avoid inadvertant destruction of innocent lives and property. Many guerrilla moves are calculated to produce just this type of reprisals to alienate a friendly population. It was not in vain that General Tikka Khan earned the title of "Butcher of Baluchis" when he suppressed the growing demand for separatism by the Baluchis. Terrorism should be answered with barbaric ruthlessness but only against guerrillas.

CONCLUSIONS

Urban insurgency is not a new concept. The ghettos of Warsaw, the berretines of Montevideo, the slums of Algiers, the mohallas of Calcutta, have all formed to some extent the refuge and the sources of urban guerrilla movements since World War II. The underlying questions are—how far can the urban guerrilla be successful and what are the best means of dealing with them? Past record of urban insurrection is indistinguished. Historical experience suggests that government can suppress it even at a late stage.

Mao wrote, "guerrilla warfare must fail if its political objectives do coincide with the aspirations of the people and their sympathy, co-operation and assistance cannot be gained". The idea holds good as in an urban battlefield as in jungle areas. The seventies have seen a greater upsurge of assassination, kidnappings and hijacking. Governments in several countries have been forced to pay attention to the urban guerrillas both to their excesses and to the underlying causes of their despair.

India shares a border with Pakistan in an industrially and economically prospering Punjab. The townships of yesterday are fast growing into bigger cities. Possibility of induction of urban guerrillas in this area by a ruthless enemy cannot be completely ignored. Planned alone or in conjunction with their regular war, it could be a menace worthy of early attention and treatment. Spiralling prices, corruption, disparity in living standards, growing unemployment, paucity of accommodation all present lucrative causes to lure the Indian town dweller today. Organisations, opposition parties, support of subversive external powers are not lacking. A sudden spark can ignite urban insurgency within any city, which will be difficult to smother easily due to our slow-to-react civil administration and police forces. The only factor which prohibits this arising is the inadequate public support. Apparent lethargy and torpor of the cosmopolitan, their dependence on law and order and need for security, render them unsteady collaborators.

It will suffice to sum up that a well planned and astutely executed urban guerrilla warfare has even chances of success. If the government

forces can be pinned down on one or two other fronts, urban guerrillas have more than a fair chance of decisive victory on this battlefield.

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COVERING THE LAST 200 METRES AND FIGHTING ON THE OBJECTIVE

LIEUT COLONEL ANJANI KUMAR SINHA (Artillery)

THE concept of the Infantry closing with the enemy dates back to the pre-mediaeval age. While in all operations of war, tactical use of natural obstacles has always been made by field commanders, the use of artificial ones, though in small degree, has also been employed since long. But it was only during the First World War that the idea of using mines and wire around a defensive position, on large scale, captured the imagination of military tacticians. The end result has been that these obstacles have even succeeded in halting many assaults within the 200 metres of the forward edge of the objectives, particularly when the artillery has lifted and the Infantry had to pierce into the wall of enemy fire on its own. The covering of the last 200 metres has become very painful and expensive in manpower.

The problem does not end on reaching the edge of the objective. It magnifies itself manifold when on the objective the troops encounter bunkers and open trenches. We, therefore, need to evolve drills to overcome the problem in its entirety. We need to reshape our training.

In this paper an effort will be made to suggest modifications to our existing tactical doctrine and discuss various drills in broad terms to improve our standard of assault and fighting on the objective. The paper covers the following aspects :—

- (a) The task of the Infantry,
- (b) Obstacles during the assault,
- (c) Fighting through the objective, and
- (d) Training.

Since the last 200 metres' fighting involves battle craft of individual skills and tactical principles at the section and platoon level, the drills are discussed at that level. The discussion does not claim to be exhaustive.

THE TASK OF THE INFANTRY

"To close with the enemy and destroy him" is the task of the Infantry. The definition from all comprehensions of military thought lacks clear identification: it is much too general in description. The essence of Infantry work lies in manoeuvre. The task does not speak of manoeuvre. Now about the word 'destroy'. Destruction of the enemy is not enough at the contact level. To destroy, say, the armed forces of a hostile country, could be the directive of a government to its defence forces. But in the field at contact level, the aim should be to raise fierce fighting with the sole emphasis on annihilation. Hence to create the correct psychological understanding, and stand as an all-time reminder to all planners the task should be more specific and direct and should signify the correct meaning, vis-a-vis, its effect on tactics and morale. The task should therefore be modified to read, "to close with the enemy and by skilful use of fire power and manoeuvre annihilate him".

OBSTACLES DURING THE ASSAULT

The concept that the first wave should unhesitatingly go through straight on the objective, as planned, is allright. But at the same time the inevitable practical difficulties and the inherent imponderables, which are associated with the physical movements across the obstacles under heavy fire, cannot be overlooked. Methods of regaining control with minimum delay, maintaining it till the objective is captured, need to be made instinctive for commanders at all levels through intensive training.

Assault across mine-fields. Since a deliberate attack will almost always be launched in darkness, there is a requirement to send out in advance a group of Infantry men with some engineer element, an Infantry Engineer team, to silently enter no man's land and clear safe lanes for the Infantry. This could be timed such that lanes are cleared before the assaulting troops cross the Start Line. For achieving surprise and deception, groups of such men may have to be sent on other obvious approaches also to confuse the enemy. In case these teams do not succeed, particularly during day attacks when such teams will find it very difficult to operate, the initial wave has no way out but to walk through the mine-fields, using whatever mine-bursting equipment is available. Casualties will have to be accepted. Since the mine-fields will always be covered by fire, during the "walk through" the gun group within a section should provide covering fire while the rifle group is moving across.

Breaching of wire obstacles. Before the Infantry encounters wire obstacles, it is safe to assume that to a certain extent artillery would have

breached them. In any case, there is a requirement to send an Infantry-Engineer team armed with bayonets, hand grenades and wire cutters to move ahead of the assaulting troops, for making gaps with the help of wire cutters and means like Bangalore torpedoes and "delouse" the booby traps. Their activity could be timed such that the gaps are made just when the assaulting troops leave the Start Line.

FIGHTING THROUGH THE OBJECTIVE

When the assaulting troops have gone over the mine-fields and the wire obstacles, they charge the objective. To create demoralisation in enemy ranks, the yell of "charge" or war cry should rise from the rear line of troops pulsating over the forward lines like waves. The troops should continue pressing forward along the roaring inferno of screaming and noise of battle, discharging a great volume of continuous fire. And then, out of this welter of chaos and confusion, should emerge a pattern of battle which systematically destroys every fibre of resistance. Fighting on the objective against a determined enemy will not be as tidy as planned, it would be difficult to control. Success would depend entirely on initiative, skill and determination of well-trained junior leaders and men. Every soldier has to be thoroughly proficient in handling of his weapon, particularly at short ranges as the field of view will be restricted. He has to be quick on the draw, use his weapon with extreme speed and accuracy from any position. Sections and groups may get separated while dealing with enemy strong points, open trenches and isolated enemy posts. It is suggested that the following actions are carefully carried out before the troops are launched in an assault :

- (a) Intensive patrolling should be organised to pinpoint enemy positions.
- (b) The entire objective should be softened up by air bombardments, artillery concentrations and tank fires particularly when the attack has to be noisy.
- (c) During the actual assault, artillery should continue to blast the depth localities which lie beyond the minimum safety distance from our troops. Since timed programme may not meet the requirement, FOO's will have to move well forward with the attacking troops so that fire could be moved in accordance with the speed of the infantry and progress of attack.
- (d) To neutralise the reverse slope and to deal with any suspected enemy supporting localities on the flanks, artillery may have to fire smoke mixed with HE.

- (e) Tanks and medium machine guns may have to be sited to enfilade the reverse slopes from where the enemy might spring a counter-attack and neutralize any machine gun emplacements on the reverse slope that might come to life when our troops work their way over the crest.
- (f) Closer the infantry moves behind our artillery concentrations the better chances they have to cross over the obstacles with comparative ease and success.
- (g) A silent infiltration into the enemy position and then a build up with careful rapidity to reduce different bunkers and trenches might bring rich dividends in preference to going in for straightforward assault.
- (h) To provide close fire support till the infantry steps on the objective, in the final stages of the advance, tanks should fire AP shots instead of HE.
- (i) It is necessary that the objective is identified by all so that everyone knows what to make for.
- (j) Tactics will have to be varied according to the different types of enemy positions. Bunkers cannot be attacked with bayonets.
- (k) To overcome an enemy post, maximum use of hand grenades to destroy the inmates and platoon anti-tank weapons to demolish the post will have to be made.
- (l) Any open flank of the assaulting troops exposed to enemy fire needs to be protected. This could be done by use of smoke or by the gun group of another section providing suppressive fire. Normally a section should not be expected to protect its own flanks while simultaneously providing its own covering fire.

Strong point. Any softening up process cannot guarantee success. It is, therefore, of the utmost importance to have a sound drill worked out, for all available weapons for the elimination of bunkers, particularly those still intact. Enemy inside a bunker is best attacked with anti-tank weapons using AP with HE and with smoke. The AP shot loosens the earth and timber of the post and HE 'shovels' the rubble away. Smoke not only blurs their vision from taking aimed fire at closer ranges during night but it also helps in smoking them out. Smoke also forces the enemy's small arms, especially his machine guns to resort to fire on fixed lines even during day attacks. This becomes too expensive in ammunition. No enemy likes to expend ammunition on targets that he cannot see. The

necessity for all to be trained to work effectively in thick smoke must be realized. Only those men who are trained for this job can usefully tackle a strong point. In the absence of any platoon anti-tank weapon, the following drill with advantage could be followed by a section :

- (a) Rifle group approaches the bunker from flank. Rifle men No 1 and No 2 as the grenade projector team take up lying position and throw grenades from a launcher into the bunker windows/apertures.
- (b) Rifle man No 3 throws a smoke grenade in front of the bunker.
- (c) Rifle men No 4 and No 5 move to the rear of the bunker and throw grenades from the rear opening.
- (d) The gun group provides covering fire.

Isolated pillbox. When an isolated pillbox is encountered, the task should be given to a platoon with a section of MMG. Any amount of anti-tank and machine guns firing into the slits and entrances may not achieve success. The pillbox may not also be adequately dealt with by indirect long-range medium artillery fire. To demolish it with success, prohibitive amount of ammunition will have to be fired. The only weapon which could be successful is direct lay fire from 130 mm medium gun. In its absence let the anti-tank weapons pump in AP mixed with HE at the pillbox. The occupants would then run into trenches at each end of the pillbox and return only when fire stops. Under the circumstances spray the ends of the pillbox with machine gun while AP mixed with HE is being used against the pillbox itself.

Mutually supported emplacements. It is normal to find that enemy's emplacements are mutually supporting. In that case the problem of reducing them becomes more acute. It has been found from experience that in spite of large-scale preparations, there is always a blind spot in the defences particularly so when the enemy in the trenches has been eliminated. Since many rifles and machine guns of the enemy would be silenced by own artillery, armour and the infantry, some spots are bound to remain without any fire support. What then would be required is to locate the blind spot. Once an emplacement is discovered which is mutually supported by another emplacement, the troops detailed to reduce it should take the following action against the selected emplacement when the supporting ones are kept under strict watch to prevent them from acting :-

- (a) The platoon commander or more preferably one of his section commanders, reconnoitres the area until he locates a blind

spot. Most likely this will be a place close to the fire ports or the entrances which would be away from the fixed lines from the adjacent emplacement.

- (b) He joins his men and by signal briefs all.
- (c) Automatic weapons are laid on the fire ports of the emplacement.
- (d) Two rifle men armed with grenades crawl within 20 metres of the blind spot.
- (e) On signal from the platoon commander everyone opens fire. When it is clear beyond doubt that the blind spot is not covered by fire, the two riflemen move within 5 metres of the emplacement and throw in grenades in quick succession.
- (f) The two riflemen jump inside and complete the destruction.
- (g) The same drill is then repeated for other emplacements with of course lesser and lesser risk since the remaining emplacements will be uncovered at several points making the task easier.

In case it has not been possible to locate a blind spot in the defences to make destruction of each post in turn possible, the answer lies in laying on simultaneous heavy weight of fire on as many supporting emplacements as possible so that no post is in a position to provide adequate enfilade fire in front of its neighbour and then deal with them one by one. If there are enough troops, simultaneous attack on the posts is also advocated.

Use of grenade. Smoke grenade is used to blind enemy's aimed fire, to screen movement and to smoke out the enemy from strong points. The use should be controlled by the section or platoon commander himself. The section given to overcome strong points should form a grenade projector team of two men, one to load the grenade, the other to fire. In a platoon manoeuvre, fire support section in the platoon may use grenade projectors for additional fire support but assault sections may not always be able to spare riflemen for this job.

Open trenches. Particularly in a hasty defence, the enemy may occupy open trenches or foxholes. Accurate artillery concentrations and airburst should be able to reduce major portion of resistance.

If the enemy is occupying a continuous zig-zag trench system, then the method of assault should be as under :—

- (a) The entire length of the trench should be divided into three-men gun positions.

- (b) All men of a group should jump into one end of the trench of their group position, the end selected should preferably be the one nearer to the enemy's open flank.
- (c) Leading men in each group should move rapidly towards the other end along the trench firing all the time at single shot. At no curve should he stop to see what is beyond.
- (d) The other two men of the group should follow the leading man immediately and closely behind him. The second man takes over when either the leading man's magazine is empty or he has been shot at. The second man had to be extremely alert to the extent that at no time the continuity of fire is broken. When the second man is out, the third man takes over. If the first man has reloaded then he follows the third man and so on.
- (e) Each firer has to follow the 'shoot first' technique.
- (f) If the trench system has dug-outs, then team will need a fourth man whose duty should be to lob grenades into the dug-outs. He should always follow the leading man.

Separated enemy post. The post should be approached by only two men at a time; the rest providing covering fire when required. So by and by, in stages, the entire rifle group should pounce on the post. The gun group should provide cover from a flank. Throughout the period when by stages the rifle group keeps closing in, the enemy must be subjected to intense fire unless it is planned to approach silently. To deny aimed fire by the enemy who is well dug in and prepared, the platoon commander may have to use two sections for the purpose, approaching simultaneously from two sides providing concentrated covering fire of the entire platoon resources from one side only. This will avoid any confusion and at the same time afford a heavy weight of fire.

During planning, in the normal course, a section of a platoon is given a definite objective which is identified on ground by all men. The plan is then launched in all its fierceness. When an unplanned target props up, a commander has to quickly decide whether it materially influences the course of the battle. If it did, then without deviating from his original task, the commander should employ part of his reserve to engage that target. The point which he must remember is that nothing must distract him from his aim.

Engagement of opportunity targets. An unlocated post normally lies quite doggo until the right time comes and then springs to action when

it is sure to inflict casualties. This post often has a field of fire of only a few metres within a narrow arc in one direction but it is sited so awkwardly that when opportunity falls in its way, it interferes seriously with the attacker's advance. To avoid fire from fixed lines, the troops would crawl forward flat on the ground. It is known that to cover longer range, a fixed line medium machine gun fires at least two feet above the level of the ground.

Bayonet fighting on the objective. Experience has shown that in modern warfare, the bayonet has lost its historical importance. The weapon does not have much tactical use. Except for building up psychological strength, it has lost much of its employability.

TRAINING

The entire concept of assaulting through the last 200 metres and fighting on the objective is based primarily on the rifle section and platoon fire and manoeuvre. Failure to recognise this can only lead to avoidable disaster. On all our training exercises, the section and platoon fire and manoeuvre do not get due attention. They are dismissed as meant only for junior officers. Wars ultimately are section and platoon commanders' wars and minor tactics predominate all activities. A soldier has to be cunning in converting circumstances to his advantage. A head-on rush, though gallant, may only result in defeat. Unprofitable ventures must be discouraged. In the face of intense fire, an individual will largely have to act on his own and outwit the enemy at his game. He is to be trained to become a craftsman, both in skill at arms and field craft. On all training exercises, troops should be made to live hard on austerity scales.

Handling of weapons, with the ability to fire quickly and accurately at short ranges should form a major part of individual training. Superlative shooting is an art of fire which calls for the realistic application of qualities of observation, listening, perception, deduction, judgement, vision and skill. Our infantry man must develop speed in thought, decision and action.

Infantry-Engineer Team. During the Second World War, there were many occasions when the Americans very successfully landed Infantry-Engineer assault teams on a beach to eliminate enemy strong points and obstacles. The Japanese also used Engineer detachments with infantry battalions and often allotted them to even company groups. Such teams could be used profitably even now against mine-fields and wire obstacles. The pillboxes, strong points and other concrete emplacements which are

capable of withstanding artillery and air bombardments could be easily tackled by such teams. The team work of course calls for intensive infiltration training. In addition, the infantry would have to instil complete confidence in the cooperating Engineers of its ability to give fool-proof, close and intimate fire support. A section strength of one NCO and 10 men from the Engineers could be attached to every infantry company for the task. These men could be further distributed to the platoon at the scale of 2 men per platoon and remaining 4 men with the NCO in the company Headquarters as "a reserve to be used where more effort is required. Hence during all training exercises on the operations of war "Attack", one engineer field platoon per infantry battalion should be attached.

A practice course should be constructed for their combined training representing two mutually supported emplacements separated by a distance of approximately 100 metres. The "objective" area should be organised such that all around this area there is a pattern of double apron barbed wire fencing approximately 30 to 40 metres away from the edge, then deep-set, low wire entanglements and beyond that a 300-metres-deep 'protective mine-field'. All such mines and selected wires should be electrically connected to various display boards placed away from the 'objective'. The arrangement should be such that once a soldier steps on a mine or cuts the wire connected to a "booby trap", a light burns on the display boards. The instructor then declares that soldier a casualty.

In the first stage of their training, the Infantry-Engineer team should be so exercised so that they disconnect the connection and thus "disarm" a mine without being seen, heard or stepping over. In the second stage, the exercise for wire cutting is practised. As soon as they are seen or heard cutting wire or an attempt to cross the wire is made, the "troops" would be brought under simulated heavy machine gun fire. On this the Infantry men from the Team would open fire on all the apertures of the 'emplacement' facing them. Under this covering fire, the engineers would crawl and carry out their wire cutting operation. The team will also have to be trained to spot a 'booby' or any other unusual traps which are linked with the wire and then disarm their traps. From the habit of the enemy, this should not be difficult to know what types of artificial concoctions and ruses the enemy was capable of planting along the axis of attack. In the third stage, the engineers should tactically use explosives in conjunction with the Infantry to destroy the 'emplacements'.

CONCLUSION

Soldiers who are skilled at arms and at fieldcraft under determined leadership are always destined to win a battle. Those ill trained are

bound to fail. It is not only the equipment and the armament which decide the fate of war, battles are won by soldiers and for that they have to be adept in the skill of the game. Before launching an attack, the position must be studied with infinite care. All possible information must be collected. We have enough time to ruminate over how things go wrong and why many peace-time experiments do not succeed during actual battles. A large array of disparate conclusions are always stacked up after the wars but still the answer eludes us. What is required is a sincere effort and bold decisions from higher commanders to bring required modifications in our training. The cloak of conservatism must be shed, allowing new realizations to find suitable place. Details should be worked out and then translated into non-rigid drills, flexibility having full play to suit unforeseen situations. Tricks to outwit the enemy must emerge from the many permutations and combinations of battle situations.

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THE TECHNICAL EDUCATION OF THE ARMY OFFICER

LIEUT COLONEL J SEN

INTRODUCTION

THE October 29, 1973 issue of 'Newsweek' quotes a Pentagon tank expert as having said, "The reason the Israelis ran into trouble at first this time, is technology. The Israelis believe that a tank is the best weapon against another tank, but they didn't count on the advances in sophisticated Soviet anti-tank weaponry." The Israelis were unable to take the offensive in the early stages of the Arab-Israeli War (1973) because their planes were severely hampered by Soviet-built surface-air missiles—SAMs 2,3,6 and 7; their tanks were kept at bay by guided anti-tank missiles—the Swapper, Swatter and Sagger; one of the Israelis' main problems early in the war was their electronic counter-measure (ECM) deficiency—their inability to detect enemy radar and neutralise these by jamming signals. This war, more than any other previous war, was a battle of technology.

Just what kind of impact all the new weapons and munitions used during the West Asian war would have on warfare, is hard to say. US military analysts are already busy trying to determine whether armoured warfare tactics should be modified to offset the new capability of ground troops; whether battlefield balance is tilting back in favour of the infantry and whether the answer to the devastating effect of SAMs is to develop longer range missiles that will permit aircraft to attack airfields and anti-aircraft defences. Indeed, today more than ever, science and technology are having a profound influence on combat capability and battle-worthiness.

The complexities of modern war and the rapid pace at which technological developments related to war are taking place, make it imperative for officers to have an intimate knowledge of the capabilities and limitations of current and future weapon systems and their relationship to sound employment doctrine. Not only must we have trained personnel to handle the influx of sophisticated equipment but also have officers capable of grasping large, complicated technologically oriented situations and possessing

knowledge, insight and attitudes involving technological and scientific implications.

Almost a decade ago, the Chiefs of Staff expressed their firm conviction for the need to equip our officers with a higher and more up-to-date education so that they could meet the challenges posed by the technological advancements in the field of warfare. However, very few concrete steps have been taken to achieve far-reaching reforms in the technological education of Army officers.

Our principal concern here is to examine the manner in which the Army is preparing its officers to function as effective military executives in the light of the growth of sophisticated weapon systems and the rapid pace of developments in the field of munitions, electronics, armaments and engineering. Let us, therefore, review the existing system under which the Army provides its officers an understanding and appreciation of what in some quarters is referred to as the 'scientific dimension'; let us determine to what extent are officers being trained to handle the scientific or technical factor in the course of their duties; and ascertain to what extent the Army grooms its officers to assume responsibilities in relation to technology in the hierarchy of Army organisation.

PATTERN OF UNDERGRADUATE EDUCATION IN THE ARMY

THE EXISTING ORDER

It is not the function of the National Defence Academy (NDA) and Indian Military Academy (IMA) to prepare officers for eventual policy level positions. However, their importance lies in providing the officer with basic technical education that must serve as a firm foundation for his long career in varied and progressively higher appointments in the Army.

The minimum education standard of entry into the NDA is now the level of the Higher Secondary Certificate of Education. From July 1974, graduates of NDA, after undergoing three years of academic instruction in the humanities and basic sciences, will be recognised as equivalent to BA or BSc depending upon their chosen streams. Thereafter, Gentlemen Cadets will undergo one year's training at the IMA where the accent will be on Service subjects; academics will constitute only 30 per cent of the total curriculum. The academic syllabi is not designed to raise the educational qualification of cadets; it aims at imparting a measure of humanities to the science stream cadets and also a measure of education in the sciences to the humanities group so that their undergraduate education is adequately balanced in keeping with the requirement of the Service.

AN EVALUATION OF THE ACADEMIES

It is significant that both Dr. Mahajani's Report on the NDA Syllabus (1968-69) and the subsequent report of the IMA Syllabus Revision Committee (1969-70), which form the framework for reforms in the undergraduate educational programme at NDA and IMA, did not take into account the requirements of the technical corps (Engineers, Signals and EME) for qualified engineers. Since 95 per cent of the science stream officers are absorbed into the technical branches, it stands to reason that the education of the science cadet at NDA should contribute towards the award of an engineering degree rather than a science degree.

With similar intake levels, the Indian Institutes of Technology now offer a five-year degree course in engineering whilst the Army awards a comparable degree in six years, three of which are spent as cadets at NDA and three as commissioned officers. Officers of the technical branches can also be awarded engineering degrees in five years provided the accent of technological education at NDA is placed on 'engineering' rather than on 'science'. The NDA syllabi for the science stream cadet can easily be modified to this end. The technical branch colleges will then be left the task of completing the balance of two years of engineering education necessary for the award of an engineering degree. The advantage of such a coordinated pattern of engineering education is apparent. Apart from a substantial saving to the Government, commissioned officers of Engineers, Signals and EME would thus be able to obtain an engineering degree in two years resulting in their being available in units for an additional year.

REQUIREMENTS OF TOMORROW

Officers of tomorrow must not only be able to manipulate equipment but know why and how it works. Weapons will continue to grow more complex. It is therefore essential that all officers must possess a greater degree of knowledge of scientific subjects. An adequate technical education at the undergraduate level is essential for this purpose. There is no substitute for an input of qualified men at the start of the pipeline.

With each new technological breakthrough, weapons and equipment will tend towards greater sophistication. Indeed, advancements of the modern technological era will continue to exert pressures for changes in the methodology of warfare. The Armoured Corps, Artillery, Ordnance and to a limited extent the Army Service Corps are already planning to induct more and more technical graduates into their fold. It is evident, therefore, that to meet the demands of the future, we must soon gravitate towards providing a higher level of education in technology, not only to

the science-stream cadets but to all Academy entrants. The requirement of tomorrow makes it imperative to educate the non-science cadets up to BSc level and the science cadets up to BE level at our Academies.

INTERMEDIATE EDUCATION AND POST COMMISSION TRAINING

On commissioning, an officer's further technical training is determined largely by the requirements of the corps to which he is appointed. The first 10 to 15 years of an officer's service, like similar periods in other professions, determine in large measure the direction and level of performance of his career. During this time he gains experience that grooms him for subsequent increased responsibility and advancement. Most of an officer's time is spent in line activities with troops where considerable time is devoted to training. Generally, this experience is developed within a defined area of specialisation peculiar to his arm or service.

Assignment to training establishments constitutes a regular feature of this 10 to 15 years' period during which the emphasis is placed on specialisation within the corps; on building up professional competence relevant to the concerned arm or service and on the acquisition of technical know-how related to specific equipment used within the corps. The focus at this stage is upon weapons, equipment and their tactical employment; upon organisation, departmental procedures and command techniques; upon training rather than education.

THE DEGREE ENGINEERING COURSES

An exception to the pattern of career development described above is the in-service education of officers of technical branches. One to two years after commissioning, officers of the technical branches are required to attend a three-year degree engineering course which culminates in the award of an engineering degree equivalent to Bachelor of Engineering—an essential pre-requisite for service and career prospects in these branches. The major criticism of this pattern of education is that units are deprived of the service of officers for three valuable years. This not only results in units being understaffed at times but also entails a break in the officer's academic studies. It would be infinitely better for the degree course to follow after graduation from IMA. It has already been brought out that by channelising a cadet's studies at NDA on the engineering side, it is possible to reduce the duration spent at the technical colleges by one year. If the academic content of the IMA syllabus for science students is also related to the eventual attainment of

the engineering degree, the regular officer will be able to complete his engineering education in one-and-a-half to two years of commissioned service as compared to three years at present.

En passant, it may be mentioned that the technical branches must lean more heavily for their intake on the technical graduate entry. The technical graduate undergoes one year's training at the IMA and after attending an orientation course at one of the technical colleges is considered at par educationally and professionally with the regular entry who attends a seven-year educational programme (3-1-3) at state expense. At present, the intake of technical graduates into the technical corps is only 35 per cent of the total intake into these branches. Better incentives, scholarships and inducement schemes must be introduced by Government to attract the maximum number of graduates into our technical corps. The urgency and logic for such measures in an economy-conscious State is evident. Financially, the Government will benefit immensely by insisting on such entry into these corps.

THE ARMY STAFF COURSE

Towards the end of the 10 to 15 years' period, a limited number of officers attend the Defence Services Staff College (DSSC) Course where officers with different backgrounds, experience and specialities are indoctrinated in the ways and outlook of the entire Service. It is the most important single educational experience open to the career Army officer and is concerned mainly with the employment of all branches of the Army as an integrated fighting team. As such, it is the common training ground for officers having a variety of combat, technical and administrative experience.

It is essential that our staff officers possess an intimate knowledge of the capabilities and limitations of weapon systems. The staff officer must be made aware of the dynamic changes in the technological world and realise their impact on tactics and strategy. Not only must he be able to utilise existing equipment to the best advantage but also know how to exploit their use under unconventional battle conditions. It is therefore appropriate that potential staff officers be exposed to scientific orientation training for at least three months.

For over a decade now, Staff College candidates who have had no formal scientific education, such as the ex-NDA humanities stream cadets, have received instruction in the sciences as applied to war at the Institute of Armament Technology, prior to the Staff College Course. The utility of such scientific orientation has been repeatedly assessed through periodic

feedbacks from Staff College graduates. What, then, are the possible areas for improvement in the existing pattern of training of potential staff officers?

First, I feel that the technical branch officer, who is essentially a specialist in his limited field, lacks an understanding of developments in allied fields of technology which are outside his particular sphere of activity. Such officers would also benefit immensely by exposure to scientific orientation prior to the Staff College Course.

Secondly, the scientific orientation course should rightly form an integral part of the Staff College Course as in the United Kingdom. Alternatively, the course should be made obligatory for all prospective candidates and not merely remain a desirable pre-requisite.

THE TECHNICAL STAFF COURSE

Another avenue of career development open to the Army officer is the newly-designed Technical Staff Course (TSC). From July 1974, a few officers between 5 to 17 years of service will be selected through a competitive written examination to undergo one year's technological training at the Institute of Armament Technology. Apart from providing instruction in the applications of science and technology to warfare, this course will promote critical analysis and evaluation of weapons and equipment to determine their relationship with tactics and combat doctrines. The course combines nine months of technological training at IAT with three months' tactical training at DSSC. In future, therefore, technical staff officers will be imparted, principally, broad-based education in science and technology with special reference to their effect upon combat operations and also taught the essentials of staff procedures, tactical doctrine and organisation that are the traditional forte of a general staff officer.

Technologically, the TSC will be an advanced version of the Army Scientific Orientation Course which is intended for DSSC candidates. The stress throughout the TSC will be upon technological aspects of warfare and the analysis of weapon systems; upon advancement in electronics, armaments, vehicle technology, rocketry and related spheres of the science as applied to war.

A UNIFIED STAFF COURSE

The possibility of amalgamating the Staff College and Technical Staff Courses with a view to producing staff officers well versed in both tactical and technical aspects of warfare has engaged the attention of the Directorate of Military Training from time to time. In the United Kingdom the

category of 'tactical staff officers' has already been done away with. They have evolved a unified staff training pattern that has been in vogue for the past eight years and is meeting the requirements of their Army to the fullest extent. There is crying need for our Army to also remodel our staff training on the lines of the UK pattern to meet the needs of the future.

THE TECHNOLOGICAL EDUCATION OF SENIOR ARMY OFFICERS

HIGHER COMMANDERS COURSE

Selected Army officers in their 18th to 22nd year of service are chosen to attend the nine-month Higher Commanders Course at the College of Combat. The course provides the highest level of instruction to officers in tactical doctrine and concepts, logistic planning and related subjects pertaining exclusively to the Army. The Army officer graduating from the course is made fully aware of the capabilities and limitations of his Service, its organisation, administrative techniques and problems; the development of land power in future warfare; procedures of mobilisation; trends in the combat development and weapons and equipment; and plans for the immediate future. In preparing officers for the duties of a commander and staff officer at the brigadier's level, the course attempts to impart the ultimate knowledge in matters pertaining to the Army. As may be expected, however, the course does not provide any insight into technological factors that have a bearing on war planning. With regard to the technological education of senior Army officers, therefore, we cannot view the course as being of higher level than the Staff College-cum-Scientific Orientation Course or the Technical Staff Course.

THE NATIONAL DEFENCE COLLEGE

The National Defence College (NDC) stands at the pinnacle of professional military education. It is our premier inter-Service institution wherein officers of between 20 to 28 years' service congregate with their counterparts in the foreign service, administrative service, police, audit, defence science service, and other Government departments. Many of the officers who are selected to attend the NDC are destined to occupy positions of high rank and authority. We must, therefore, examine the role of this Institute, its functions and programmes with utmost discrimination to determine whether it adequately equips the future top-level Army executive with the necessary scientific knowledge and technological education which is essential for his efficient functioning.

Training at the NDC is designed to 'equip future policy makers with the background necessary to give them a broad understanding of the

varied economic, political, military, scientific and organisational aspects involved in the planning of national strategy'. The opinion of a large number of graduates of the NDC is that the bias on foreign and international studies is grossly disproportionate. Only about two-fifths of the time is devoted to strategy and war planning and departmental problems which concern national security. Negligible time and effort is devoted to an understanding of the impact of science and technology upon the Armed Forces and an appreciation of the "scientific dimensions". The NDC, I believe, makes no effort to provide students with an insight into the relationship of Defence research and development to strategic planning. It does not prepare its students to handle the scientific or technological factor in the course of decision-making.

High-level planners must be prepared to deal with problems of a scientific nature such as the impact of low-yield nuclear weapons upon our capability of waging war; technological problems concerning the magnitude of ICBMs, the impact of electronic warfare upon the national broadcasting media; the role of operations research and systems analysis in decision-making within the field force; the vulnerability of industry to mass destruction weapons; and methodology of international control of atomic energy. The need for an appreciation of the responsibilities of other agencies and an understanding of all facets of a problem that have a bearing on the formulation of national policy is of paramount importance to the prospective decision-maker. There is a growing need today for the senior military executive to imbibe knowledge and attitudes involving technological and scientific implications. Officers at the helm of affairs must be exposed to the full range of factors involved in a decision. They must think in terms of large relationships and endless complex technological ramifications. It is, therefore, imperative that during the NDC course, greater stress is laid upon appreciation of the technological factor in strategic planning for national security. The sooner this is realised and rectified the better will be the utility of the NDC graduate.

AN APPRAISAL OF THE EXISTING PATTERN OF TECHNOLOGICAL EDUCATION

In the preceding paragraphs we have brought to focus the trend of training and education in the Army with special reference to education of officers in science and technology as applied to war. The established pattern prevailing today is summarised below:-

- (a) The general level of officers on commissioning is the Intermediate standard; from July 74 it will be the BA/BSc standard.
- (b) Shortly after commissioning, technical branch officers attend a three-year engineering degree course at their respective colleges.

- (c) Science and technology as related to warfare is taught in some detail at the Technical Staff Course and to a lesser extent in the Scientific Orientation Course for Staff College candidates.
- (d) After an officer has attained the rank of Lieutenant Colonel, he is not exposed to any training on technology as related to Defence.

It will be seen, therefore, that the Army officer's technological education is, at present, truncated and unbalanced. In the grooming of the professional officer for higher and more responsible appointments, scant attention is being paid to the development of an understanding of technological factors involved in military planning. It is generally realised that today there are no purely military or purely socio-political solutions to defence problems. The military executive cannot only concern himself with the tactical, logistical or management aspect of war. In an increasingly complex technological world the relevance of technological expertise places new demands on the Services and the officer assigned to top-level posts must develop a wide area of competence. Today, there is a need for a new kind of military expert and, therefore, new thought must be given to the training of the potential leader.

Clearly, high-level instruction in science/technology, weaponry and armaments cannot be isolated from strategical and tactical concepts and practice. An institute devoted exclusively to the evolution of weapon technology and its relation to strategy may be an extravagant and non-pragmatic claim. What is perhaps necessary is an interjacent course between the National Defence College Course and the Higher Commanders Course. Such a course would obviate the necessity for senior officer study fortnights, management seminars and appreciation or orientation courses which are currently in favour.

Some indication of the technological coverage and the nature of subjects, concerning defence science and technology, that should be covered on such an interjacent course is given below:-

- (a) Orientation in the broad aspects of developments in military technology the world over;
- (b) Re-examination of strategy in the light of weapon development; implications of technology upon strategic planning;
- (c) Critical examination of current equipment, techniques and accepted standards; trends in development with thought towards improvement;
- (d) Defence production and public/private sector manufacturing and research capability:

- (e) Impact of chemical warfare upon theatre logistic operations,
- (f) Study of the relationship between technological progress and the mobilisation of national economy;
- (g) Disarmament, international control of atomic energy;
- (h) Analysis of government agencies concerned with mobilisation of industrial resources; and
- (i) Research and development in critical industries; defining areas requiring application of Defence R & D effort.

CONCLUSION

The challenges of the eighties necessitate provision of a technologically-oriented education to the service officer. 'Sound military decision' can no longer be taken without consideration of the technological factor. Because of his rank and experience there is a much less modifying influence on the senior officer. Often his decisions will have great impact and his views will carry significant weight. It is all the more important, therefore, that the system of training be designed to fully equip the senior officer with the technological background necessary at policy level positions. Such knowledge cannot, however, be injected in one massive dose but rather must percolate steadily at regular intervals of an officer's long and varied career. In this article we have called attention to some of the serious drawbacks in the present pattern of an Army officer's training with reference to science and technology and have highlighted areas for improvement in the existing systems of education. Further, possible solutions have been recommended to remove the existing lacunae. Considering the pace at which technological developments are taking place, there is no room for opposition to technological innovation.

Lastly, there are enough unresolved problems of professional military education to warrant setting up of a high-level Board or Commission to make a comprehensive study of the entire field of Army training and education. In the normal course of events, these problems are not likely to receive attention because of more dramatic and immediate issues which dominate the daily routine. Furthermore, Service officers are 'in the chair' for short tenures during which time fundamental questions affecting the entire spectrum of Army training are seldom tackled with vigour and courage. The appointment of committees to review the syllabus for NDA and IMA during 1968-70 was essential to streamline the pre-commission system of education. The problems of higher education in military institutions are of comparable importance. It is, therefore, felt that an independent panel of experts should be set up to carry out a thorough evaluation of education in the Armed Forces as was done by the GEROW Board in the USA.

EARLY POSTAL SYSTEM IN NEPAL

P.C. ROY CHOUDHURY

THE Indian postal system was extended to Kathmandu because of the British Residency in Kathmandu and the exigencies of the military based in India. The earlier postal arrangement connecting India and Nepal was directly under the charge of the Postmaster-General, Fort William, under Military Command and the system worked through Motihari and Sugauli in the district of Champaran and the European Postmaster at Kathmandu. Sugauli was a military centre of some importance because of proximity to Nepal and recruitment of the Gurkhas in the British army.

At first, Sugauli was the main clearing house for *dak* to Nepal. Sometime after civil administration was well established, the Commissioner of Revenue Division proposed in 1838 that *dak* establishment should be transferred from Sugauli to Motihari town, the headquarters of the district, to have a quicker and more direct connection between Patna and Calcutta. This arrangement was, however, opposed by the Postmaster of Nepal supported by the Postmaster-General. The military also did not like the change.

HUTS FOR HARKARAS

Due to the insecurity and bad communication, a number of huts for the *Harkaras* (peons) were set up at different places both in India and in Nepal. A. Campbell, Postmaster of Nepal, in a letter of 4th July, 1838, insisted on C.B. Quinton, Magistrate of Motihari, to erect such huts. He was also informed that the Nepal postmaster had engaged a few men for Rs. 3/- a month during the rainy season for being present at the ferry throughout the day. It appears that any slight change in the route was viewed with misgivings. Quinton had slightly altered the established route and was called upon to explain why this was done.

POSTAL RATES

It is of interest to find from the old papers that the postal rates depended on the length of the journey. From a communication in 1841 it appears that a letter from Sugauli to Allahabad cost Rs. 5/4-, to

Chunar Rs. 3/4-, to Ghazipore Rs. 2/8-, to Benaras Rs. 3/-, to Gorakhpore Rs. 1/4-, to Patna Rs. 1/8-, to Muzaffarpur Rs. 1/4-, to Gaya Rs. 3/- and to Nepal Rs. 2/12/-.

By 1881 it appears that stamps manufactured in Nepal had started being used. The cost of each of the stamps was blue one anna, purple 2 annas and green 4 annas. It would be interesting to know if philatelists in India have these stamps.

RESIDENT'S COMPLAINT

The British Resident at Kathmandu, Girdlestone, was irritated when on return from furlough he found that without any addition to the number of runners a regular *banghee* dispatch for the benefit of the Residency consignee had been established. A *banghee* meant postal load carried on either end of a pole carried on the shoulder. The Resident pointed out that non-Residency parcels were brought up at the cost of diminished speed for the Resident's inward and outward mail. He quoted an instance of a pair of harness being brought up by the post in 1876 and insisted that no letter dak on the Residency line should exceed 8 srs. and no *banghee* dak should exceed 15 srs. Girdlestone suggested that non-Residency parcels should be carried only up to the border and it was for the Nepal Government to take up the responsibility of carrying the parcels for Nepalese subjects in Nepal. He suggested that the most direct route would be from Motihari to Kuthenwah close to which was a Nepal outpost in direct communication with the Tarai town of Bereywah. From Bereywah the Durbar had its own slow postal line falling into the route of the dak to Residency. The other alternative suggestion was that there should be an entirely separate *banghee* establishment for carrying non-Residency parcels within Nepal.

The Resident's complaint was not accepted. He was informed that the Governor-General in Council saw no reason to interfere with the existing arrangement by which the Nepal line was maintained as part of the Imperial post.

It would be interesting to describe the routes. From Sugauli to Kathmandu, Postal *banghees* ran through Moorla, Raghonathpore, Chapkalia, Tajpur, Somrabassa and after a few other dak chowkis to Bhimphedi Chitlong, Thankote and then to Kathmandu.

MONEY ORDERS

An interesting point arose as to the system of issue and payment of money orders so far as the Nepal Post Office was concerned. If the Nepal

office began to issue money orders the Durbar would have suffered as the Durbar was levying duty of 5 per cent on such remittances. Resident Girdlestone was informed that the Durbar should not be bothered about this small matter.

In 1881 it appears that Nepal's own postal system worked from Bereywah to the north of Motihari by Somrabassa, Itoundah and Chitlong to Kathmandu. For the rest of the country, there was no means of forwarding a letter, even for the Durbar itself, except by putting this cover in a cleft stick with the order that it was to be carried from village to village by whatever men were available on route.

By the end of 1881, India's postal links with Nepal had been extended. Other postal line opened up where from Ilam to Doti, to Kerong and to Kuti on the Tibetan frontier and the branches were to run from these main lines to outlying towns and military posts of importance.

THE HARKARA

Very great credit was due to the *Harkaras* who carried the dak with a jingling stick with a spear-head through extremely hazardous ravines, jungles and hill-slopes infested with snakes and carnivorous animals. The *Harkaras* running with their postal bags were the pioneers and cannot be forgotten. □

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BOOK REVIEWS

POLITICS OF THE INDIAN OCEAN

by K. Rajendra Singh

(Published by Thompson Press, New Delhi, 1974) Pp. 252 Price Rs. 38.00

INDIAN Ocean has drawn the attention of scholars during the last decade. From an area of comparative peace in the nineteenth century and early part of twentieth century, it has become an area of confrontation in the recent times. The countries which belong to the Indian Ocean area are mainly, India, Pakistan, Iran, Sri-Lanka, Indonesia, Malaysia, Singapore, Burma, Australia, and most of the Arab and African countries.

Scholars of the Afro-Asian region didn't pay much importance to the inter-regional and intra-regional politics of Indian Ocean until the recent decision of United States to develop a nuclear base in Diego Garcia, a tiny island strategically located in the Indian Ocean. K.R. Singh from the School of International Studies, New Delhi, with his specialization on the West Asian region, attempts a deep and penetrating study of the politics of dominance and confrontation in the region between the major powers on the one hand and the rivalry for leadership amongst the regional powers.

The author delimits the area of his study in his preface. He attempts to explain the big power rivalry in the Indian Ocean, as far as it relates to the impact of the weapon system on international relation. According to him the following four factors have been inter-linked :

"The weapon system capable of posing strategic deterrence :

Military strategy based upon such a system;

Political and diplomatic moves, made by each interested power to accommodate the weapon system, and the global strategy based upon that system in a particular part of the Indian Ocean; and

The reaction of local powers to the political and military implications of the foreign presence in any area of the Indian Ocean" (p. XI).

In this introductory chapter the author traces the origin of confrontation among the maritime powers during eighteenth and nineteenth century. The main motivation for these powers was to expand their commercial venture. He makes an interesting but provoking statement that the naval strategy as initiated by the Portuguese during the late eighteenth century is more or less followed by all major powers today even after a drastic change in the weapon system. He makes another

sweeping comment by saying that "the naval actions elsewhere decided the fate of the Indian Ocean area" (p. 9), but never presents the readers with suitable illustrations.

In his chapter which he names as "the Era of Land Confrontation, 1945-65", he is of the opinion that in the first half, the politics of the area was influenced largely by Great Britain and "The second half saw a gradual erosion of British influence, partly because of local opposition, and partly because of rising American and Soviet presence in the area (p. 14). India, as the author rightly thinks, became important to the Super Powers during the period, in the context of the new naval strategy. The years, until mid sixties were marked by a high-intensity diplomatic and low military activity in the Indian Ocean area (p. 50). No doubt because of Sino-Indian rivalry and Pakistan's military alignment with U.S., Soviet Union could capitalize the situation and made substantial political gains.

In his chapter, "The New Ocean Strategy" the author assesses the comparative striking capacity of the major powers in terms of new weapon strength. U.S. navy was undoubtedly the most superior striking force of the world. But in his analysis of the U.S. interference during Bangladesh crisis of 1971, the author is of the view that U.S. navy could intimidate the Indian Ocean states but become ineffective when the littoral states are determined to oppose such a revival of gun-boat diplomacy (p. 71). Soviet Union, as rightly commented, has become an independent naval power capable of playing a global role, because of its capacity to operate on the high seas, without the need to have local bases on the littoral (p. 36). China, whose national defence policy being mainly land based, is not likely to play any significant role in the politics of the region. Japan at the moment is not inclined to enter into the politics of the region and to use its economic potential to browbeat the local powers into accepting a policy more favourable to her (p. 117). But future cannot be predicted.

In the next chapter the author analyzes the origin of the artificially created conflicts among the regional actors. The big powers' involvement in his opinion complicates the situation still further. He suggests that the more the big powers keep themselves detached from these local conflict situations, the greater will be the chances for the region to be peaceful and nuclear free.

The chapter on future confrontation throws light on the mutual hatred and suspicion among the powers of the Indian Ocean area and the natural capitalization of the great powers. All the outside powers are interested in this region because of its vast economic potential. The author cautions that the third world countries within the region would be hard pressed to resist the combined pressure of the major powers, whose interests coincide (p. 207). So it is high time for them to develop a Indian Ocean Community consciousness by sinking the local differences and exploit jointly the vast maritime wealth of the region.

In his concluding chapter he traces the growing importance of Diego Garcia and the evolution of a triangular configuration between US, USSR and Europe. The international oil crisis, in his view, has three main characteristics: "the desire of several oil producing countries to curtail their oil production to conserve their dwindling oil assets, increase the oil

price and use oil as political weapon" (p. 228). But the author could have given a broad scenario of the oil diplomacy and its linkage with the politics of Indian Ocean in general and the significance of the tiny naval base at Diego Garcia in particular. The general impression, that one gets after screaming through the pages, is that it was an exercise in a hurry on a problem of great importance.

P K M

AMERICA AND RUSSIA IN A CHANGING WORLD

by W. Averell Harriman

(Published by George Allen and Unwin, London, 1971) Pp. 218 Price £2. 95

UNITED States of America and Soviet Russia have dominated the international political scene during the last half century. As the two dominant actors of the international system, both these countries are automatically involved in any major regional conflicts throughout the globe. Any observation or study on the inter-regional and intra-regional forces which influence the decision-making process of these two nations is bound to be of interest not only to researchers but also general readers.

W. Averell Harriman, who has represented United States in various capacities and has been closely associated with the ruling elites in Soviet Union from the time of Stalin to the present day, attempts in this book to sum up his personal experience and dealings with the leaders of both the countries for about half a century. The author himself admits in his foreword that his personal experiences over the years with the Soviet leaders have given him an insight into the continuing problems before Soviet Union and United States as they change with the shifting world and domestic scenes.

He divides his chapters in a very simplistic way i.e. Past, Present and Future. In the first chapter, he throws light on the personal whims and caprices of top personalities in Soviet Union, especially the ideological differences between Stalin and Trotsky and narrates some of the important decisions taken by Roosevelt, Stalin and Churchill during World War II. In his diagnosis of Soviet foreign policy, he is of the opinion that its objective was not only communist ideology but also "power politics and national power concerns" (p. 78). In the next chapter, he gives a very interesting comparison between Khrushchev and Kosygin. The former according to him took snap decisions without full consultation and no doubt built up enemies (p. 78) and the latter was ready to fight vigorously what he thought best, but when the party decided, he accepted the decision (p. 80). He deals in great details the pros and cons of Vietnam issue and defends U.S. policy as an insider in the U.S. decision-making process. He displays a lot of optimism in his future prediction about the mutual behaviour between Russia and America and demarcates the possible avenues where they could cooperate.

An obvious loophole in this book is that the author half hazily connects the historical events during the last fifty years. He is only particular about those events in which he was himself associated. For instance, his major concern seems to be Vietnam alone and all other areas are merely touched.

P K M

REMINISCENCES OF THE CUBAN REVOLUTIONARY WAR

by Che Guevara

(Published by Penguin, London, 1969) Pp. 272

CHE Guevara was born in Buenos Aires, Argentina. A chronic asthmatic from the age of two, he could not attend school regularly, but nevertheless read vociferously. He enrolled in the school of medicine and qualified as doctor. Spurred by his interest in leprosy and other tropical diseases, he travelled throughout the country, by bicycle and on foot. This "opportunity to know the people", was made possible by "working at odd jobs to earn a few pesos". He was declared unfit for military service, but this did not deter him from taking risks to support the cause for which he lived and died. With strong feelings for those who suffered, he enlisted in the cause of the oppressed in Latin America. This led him to Guatemala and eventually Cuba.

"Reminiscences of the Cuban Revolutionary War" is a collection of writings during his short but eventful career. There is an excellent introduction in the form of a tribute by Fidel Castro. The reminiscences range from thoughts about a Guatemalan patriot friend affectionately called El Patojo (meaning shortly, to incidents, anecdotes and battles of the Cuban Revolutionary War. In "A Revolution Begins" the author gives the genesis of the problem—how after the break-up of the Spanish Empire, Continental aggression by the United States became a feature of the Latin American scene, and how minority governments, invariably dictatorial, continued to come into power by coups d'etat. Democratic governments with a popular base arose laboriously, but were compromised before they could come into power. Che points out that the Cuban Revolution in this respect was an exception.

The leader of the Cuban Revolution was Fidel Castro, who tossed by the waves of social movements convulsing America, came to Mexico in 1954 after the United States of John Foster Dulles had eliminated the democratic regime in Cuba. In Mexico, Che met Castro. It was the time when the armed expedition to Cuba was being planned, and Castro appointed Che as his chief of personnel. Every conceivable difficulty faced the planners. A traitor in the ranks let them down and they were found out and arrested by Batista's men. Eventually, however, they were able to set sail in the GRANMA and land on a beach in broad daylight. Batista's men spotted them, and they were attacked from the air. Seven days of sea sickness and hunger were followed by three terrible days on land, till they reached Alegria de Pio on 5 Dec 1957.

In the many battles so vividly described, there is a wealth of experience. Many errors are brought out which Che is always reminding should be put right. He does it with a missionary zeal and a revolutionary ardour. While regretting the death of El Patojo, there is advice for constant movement, absolute mistrust of locals, and eternal vigilance. Again in the first battle of Alegria de Pio mistake after mistake was committed. Local guides were given leave and allowed to sleep out for the night. They were *informing the enemy*. This cost many lives. Che constantly exhorts that these errors be not repeated. The dilemma often faced by doctors in uniform confronted the author, early in the campaign. In a time of acute crisis, where does the first duty lie—as a

soldier or as a doctor. Che who was one of the few survivors of the first battle, carried the cartridge box and left the medicines.

Three months of fighting and hiding in the houses of peasants left only a handful of men. The depleted force suffered privation of every type and their physical and spiritual condition was seriously affected. At this stage, peasants were also not prepared to freely join the struggle. The arrival of some reinforcements in March 1957 was therefore a welcome relief and led to a change in the situation. Gradually the hold on the Sierra Maestra was consolidated and it became a rebel base. By May 1957, new weapons also arrived; and the peasants had started joining the Rebel Army.

The book makes it abundantly clear that these men of various nationalities were held together only by a common cause of liberating the oppressed from tyranny. In this band of dedicated men traitors were soon found out, and the mere adventurers fell out as misfits. Also brought out is the grimness of this type of warfare, where the hazards for the guerrilla are so great that unless the individual is completely dedicated to the cause, and has the full support of the people there is little or no chance of success.

Che has adorned the main theme of the Cuban Revolution with incidents and personal experiences. Eating the first horse on the banks of the La Plata, the tasks as social reformers and judges, but the most interesting perhaps are the descriptions of the individuals in his inimitable style. His profiles of characters cover a wide spectrum—soldiers, a poet, peasant, and a CBI agent to mention only a few.

At the end of the book, twenty-six letters by Che Guevara have been reproduced, which more than any thing else highlight his dedication to the Revolution. This is one of the best books that has come out of Latin America.

VNM

PHILBY OF ARABIA

by Elizabeth Monroe

(Published by Faber and Faber, London, 1973) Pp 332 Price £4.50

THE Arabian deserts have attracted people from all walks of life from time to time. Many mysteries surrounding these desert areas have been revealed by explorers, geographers and wanderers. St. John Philby is one of the most outstanding men, who has deeply studied these deserts and the people inhabited there. He has spent more than a half of his life time, mapping, sketching and observing these desert lands. Although he was born as a Christian in Great Britain, he decided to convert himself to Islam, for being better placed to study the lands and people living there. He even decided to quit the prestigious Indian Civil Service job, so that he could completely immerse himself to study the deserts.

Elizabeth Monroe, an expert on the Middle Eastern affairs has done an extensive study of his papers, books, maps and sketches on the Arabian deserts and has come in close contact with his family members living in both England and in Saudi Arabia.

The author firmly believes that Philby was a versatile personality who contributed profusely to several disciplines. She has compared him with the Lawrence of Arabia. In her opinion, "although both of them worked in the Arab world, they were opposite in their handling of its arbiters. Where Lawrence rightly judged the tempo that suited the men in power, and was able to cajole them into doing as he advised, Philby, hectoring, intemperate and opinionated, provoked their wrath and lost his case" (p. 296). Finally he was also banished from the land he loved most. His admiration for Ibn Saud, a leading Arabian ruler, was partly responsible for his opting for the Arab deserts. But as the author rightly points out "the deserts suited his talents" (p. 297).

The author in her analysis also points out that Britain had betrayed its word to the Arabs and it was Philby who strove, throughout his life, to put right the wrong, even at the cost of personal sacrifice (p. 137).

On the whole the books makes a pleasant reading, not only to students on Middle East, but to any general reader. The chapterization and narration of events have been selected in a lively style. But for a painstaking observation and study involving extensive tours, such an educative and thought-provoking biography could not have been written.

PKM

T.E. LAWRENCE : A READERS GUIDE

by Frank Clements

(Published by David and Charles, Newton Abbot, 1972) Pp 208, Price £3.50

LAURENCE has undoubtedly been one of the most controversial figures of recent history. He has been the subject matter of vast literature and the interest in this colourful personality in the political and military world never seems to fade. This bibliographical work lists and describes what Lawrence has written and what has been written about him.

Divided in seven sections, the work lists separately major works of Lawrence, his miscellaneous writings, works and articles about him, general works on Middle East War with relevant references to Lawrence, Arabic sources and, finally, some miscellaneous items. Each work and article has been clearly described to facilitate speedy reference.

A convenient reference work for libraries.

V.J.M.

THE WEST INDIES AND THEIR FUTURE

by Daniel Guerin

(Published by Dennis Dobson, London, 1961) Pp 191 Price 18s

THE absence of any linguistic unity is perhaps the greatest misfortune of the Carribean. The region is a mere abstraction. To the French it is "Les Antilles". To the English it is "West Indies" or "The Carribean". Physically the islands look "as much alike as so many sisters". What is common throughout is the climate, tropical vegetation, type of agriculture, dwelling places, food habits, folk lore dating back a remote African past and a basically Negro stock.

In these tropical islands populated by the decedents of African slaves, subsequently reinforced by indentured Indian labourers, "splendour and misery sit side by side". The half-starved labourer suffering from tuberculosis, venereal disease, malaria and hook worm lives in utter squalor exploited by planters, colonists and metropolitan companies owned by a handful of white families who control banking, export and import and run the "administrative circus". With an annual population net increase ranging between 23 and 36 per 1000, the demographic pressure is heavy. The entire economy is based on agriculture and there are no industries other than sugar factories. The sugar plutocracy has taken good care to ensure that there is no industrial diversification to thin the ranks of jobless day labourers. The racial prejudice is intense.

What is the hope for this sprawling archipelago where administration takes care only of the big planters and perhaps the mulattos who form the middle class? There are no doubt signs of the dawning of social consciousness. But the islands cannot live in isolation upon their individual economies. They must find a way of cooperation and mutual exchange. They must either federate or collapse. The only hope is to bring about a socialist commonwealth.

The author makes an exhaustive study of the Carribean problem and establishes a Carribean unity which has much in common, poverty and white exploitation of the coloured masses above all. His brilliant exposition is based on an authoritative material on the subject and personal observations during his visit to a number of these islands.

A work containing a wealth of information and a timely warning to voracious mother countries with reverse flow umbilical cords stretching to far away colonies with varying degrees of dependence or independence.

V.J.M.

MEXICO 70

by Martin Peters

(Published by Cassell, London, 1970) Pp 114 Price 28s

THERE is endless "pretentious rubbish" written about football. That is how player author Martin Peters feels about football literature. In fact he had vowed that he "would not fall in the same trap of

elevating a simple game into an art form". One therefore wonders if he would ever have written a book had England done a lot better or a lot worse in World Cup-Mexico 70.

What matters in the book is Chapter 12 "Disaster in Leon" where the quarter final has been portrayed in graphic detail. After all that is what the book is about. The earlier chapters are thinly veiled autobiography. But credit must be given to the author for seeing it through the rest of the chapters which could have been only a painful process.

Peters, who played for England in Mexico 70, writes with the ease of an uninhibited sportsman speaking his heart. He is full of regard for Sir Alf Ramsey, the Manager of the English Party. Peters bears no grudge against Sir Alf for pulling him off at Leon in the second half. England were then still one in front of West Germany and the manager had every justification to "save" Peters for the next match. But the fortuitous equalizer came just after. The third German goal which finished England was not fortuitous according to Peters. Muller who hooked in the ball on the six-yard line was unmarked.

Peters explains his own role in the team at some length for the benefit of his unidentified critics. He is a mid-field player who goes forward in search of goals. But he is also supposed to help when the team is being pressed in defence besides tackling and marking. Evidently it is a somewhat obscure role and since the 1966 World Cup, Peters has been hoping that students of the game could put a name to the face and a title to his position.

Hard as he has tried not to make it look so, the book is an apologia for the fiasco of English football in Mexico 70. Still with its 16 pages of action pictures and essential facts and figures, it would make a rewarding afternoon reading for football fans.

V.J.M.

FAREWELL TO THE ASSIZES

by Basil Nield

(Published by Garnstone, London, 1972) Pp 279 Price £3.95

ENGLISH laws and law courts have influenced the legal system in most part of the world. British legal system has gradually evolved in due course of time. Very recently, the judicial structure throughout the country has been changed. The courts of Assizes in the counties have been abolished and in their place the Circuit Courts and the Queen's Courts have been set up. But the courts of Assizes do provide a linkage to British legal history.

Sir Basil Nield, in the capacity of a high court judge, has visited all the sixty-one Assize towns in England to deliver justice in criminal and civil cases. This book not only provides a record of his experiences as a judge

in all these country townships, but also a remarkable study of the geographical, historical and cultural importance of each township. In his first chapter, he pinpoints the importance of the Assize system since it was introduced in 1166 until it was decided to be abolished by the Report of the Royal Commission presented to Parliament in September 1969. Then he proceeds to emphasize the importance of four Inns of Court, i.e. Lincoln's Inn, Gray's Inn, the Inner Temple and the Middle Temple, and gives a graphic picture of the entire judicial system in Great Britain. In his intensive study of the Assize courts, he divides the entire country into seven basic regions, i.e. the South-Eastern circuit, midland circuit, the Northern Circuit, the West Eastern Circuit, the Oxford Circuit, the Wales and Chester Circuit and finally the Western Circuit. Thus he covers all the sixty-one towns, which he visited during his entire career.

In his entire study, he focuses his attention on the importance of such officers in the countries like the High Sheriff, Lord Lieutenant, Under Sheriff, the clerks of the Assizes and others. He also points out their peculiarities in different parts of England. According to him, under the system of Assizes, the High Court judges have not only moved from one part to another to preside over the Assizes but also in their striving to give justice have "evolved a considerable measure of traditional pageantry" (p. 262). He is also of the opinion that the judges must display enough patience and human understanding while hearing and delivering judgement.

On the whole, it is the personal account of a judge written with a poetic style. But the major shortcoming of the author is that he has not given enough thought to theorize his own findings,

PKM

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SECRETARY'S NOTES

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All subscriptions are due on 1st January in each year. It would be of very great assistance and a saving of considerable time and money to the Institution if those members who have not yet paid would please let me have their remittance as soon as possible and without further reminder. The Council has increased the annual subscription for ordinary members to Rs. 15 and for subscribers (institutions, messes, etc.) to Rs. 40 with effect from 1st January, 1975. This has been necessitated due to increase in the production cost of the Journal and library books.

MEMBERS' ADDRESS

Copies of the Journal posted to members are sometime returned undelivered by the Post Office with remarks such as 'the addressee has been transferred', etc. This appears to be on the increase and the only way to rectify it is for members to drop a line to the Secretary whenever their addresses change due to promotion, transfer, etc. It is of the utmost importance that the Institution should have the up-to-date addresses of all its members:

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